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Original Articles.

SYMMETRICAL GANGRENE (RAYNAUD'S) VERSUS ENDARTERITIS OBLITERANS.*

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SUMMARY.

1. Its Anatomic and Physiologic Consideration.
2. Relative Infrequency of Raynaud's Disease.
3. History of Two Remarkable Cases.
4. Etiology Relations of Each Disease to Other Morbid Conditions.
5. Progress and Termination of Each Disease.
6. Treatment.

INTRODUCTION.

Since the establishment of pathologic laboratories has come to be a necessity in all well-equipped hospitals, our knowledge of the etiology, progress and termination of disease has advanced *pari passu*. It may be easier and quicker to pass upon diseased processes without the labor and proper time spent in pathologic research, but true reasoning and systematic and correct classification of disease can only be obtained by comparison of the healthy and diseased areas.

There is, however, no question that in the subject under consideration in this paper, that the drawing of the line too sharply between similar diseases and the same diseases, has been the cause of much confusion and doubt, and too many phenomena have been looked upon as Raynaud's and too few as other diseases. It is openly held by many able clinicians that such a condition as true Raynaud's disease does not exist; others take the middle ground and speak of those cases as Raynaud's in which there are stages of syncope or asphyxia and gangrene, even though they show on examination a proliferation of the intima with partial or complete occlusion of the vessel. The question also arises, are there some cases in which this occlusion is due to a thrombus, which has become organized and is independent of the intima, but caused primarily by a disturbance in the circulation, dependent upon a vasomoter origin? The time necessary for the formation of a thrombus and its organization enters very sharply into the consideration of one of these cases presented. Zeigler thinks that a clot could hardly organize in less than a week or ten days; the rapidity in which the disease made its appearance in the case to be presented would seem to remove the theory of connective tissue growth as the incentive cause.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Nervous and Mental Diseases, and approved for publication by the Executive Committee: Drs. Frederick Peterson, Richard Dewey and H. A. Tomlinson.

ANATOMIC AND PHYSIOLOGIC CONSIDERATION.

It seems to be the smaller blood vessels that are affected first in Raynaud's disease. The smaller the artery the more muscular is its middle coat, and so it is more capable of active changes in its caliber. Raynaud said the disease was due to a vicious innervation of the capillary system. The nerves, which are derived from the sympathetic system, penetrate the outer coat of the arteries to reach the muscular tissue of the medium, and these nerves, which are the dilators and constrictors of the blood supply, are controlled through their center in the spinal cord—the messages coming either from the periphery in the way of cold, heat, dampness, etc., or from the center by the toxicity of the blood or by way of higher mental and psychical impressions. It is a fact that uric acid in the blood is capable of causing vasomotor disturbance.

Many diseases may have the same appearance, yet arise from entirely different causes. The gangrene may be most extensive in both, and the ages of the patients may be about the same. Microscopically, the parts have little to differentiate them. The microscope may aid us as to the starting proliferation of the intima, showing changes in the muscular and thickening of the outer coat. Friedländer's disease or obliterative arteritis (described in 1876) generally shows neuritis. In Raynaud's, even where there is gangrene, we do not necessarily find neuritis, and if it occurs it has been claimed by Dehio, Barlow, Collier and West that it is secondary to the gangrene. In short, as Monro says, Raynaud's gangrene may occur without neuritis, and apparently without either arterial disease or neuritis. It is explained that the nervous element in Raynaud's causes an abnormal excitability of the vasomotor centers in the spinal cord, producing a spasm of the vessels; this excitability of the vasomotor center may be brought about by stimulation of the centers by poisonings in the blood and reflexly by agents acting on the periphery.

RELATIVE INFREQUENCY OF RAYNAUD'S DISEASE.

There is no doubt that true Raynaud's disease is very much of a curiosity. It is beyond question a fact that many cases of symmetrical gangrene are tabulated as Raynaud's, when an examination of the arterial system would have shown hardened arteries with perhaps hypertrophied heart, accentuated diastolic aortic sound, or displaced apex beat. Further examination of the dead area in section, either macroscopically or microscopically, would reveal occluded vessels, both in and above the necrotic region. A continued paroxysmal contraction in the vessel may lead to thrombosis, but there should not be in true Raynaud's a proliferation of the cells of the intima, leading thereby to a slowing in the blood current, and a necessary following of thrombosis.

HISTORY OF TWO REMARKABLE CASES.

One of these two cases which I here report can very clearly be put down as endarteritis obliterans; the other has so many remarkable and analogous features to Raynaud's disease that its tabulation is even yet in much doubt.

CASE 1.—A Jew, aged 35, who had always enjoyed good health up to the age of 25.

Family History.—Father died when eighty of tuberculosis. Mother died during confinement.

Previous History.—Born in Poland. Was a healthy child. Made good recoveries from the usual diseases of childhood. Had malarial fever five months ago. Has always been healthy other than gangrene in right leg ten years ago. "The gangrene in the first instance came from frost bite." The history of specific disease could not be obtained, and only an exposure to extreme cold during severe army service in Europe, some ten years ago, could be found as a contributing cause to the extreme gangrene.

Present Illness.—First noticed trouble with left leg about four months ago. Went to hospital. The gangrene began in the toes first and gradually worked up. Contraction in the leg began about the same time as the gangrene.

Examination.—The radial arteries were found calcareous and nodular, especially the right. The heart sounds were feeble, but clear of murmurs. Examination of the fundus of the eye showed the vessels markedly narrowed. The urine was of low specific gravity (1006), but otherwise normal. Temperature ranged from 95 F. to 104.4.

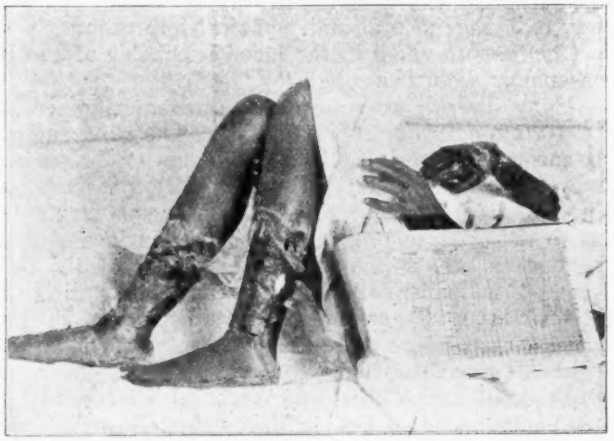


Fig. 1.—Symmetrical gangrene.

Operation.—By Dr. Thompson. Left knee of thigh aseptically prepared. Incision beginning at upper end of lower third on outer side of thigh and extending down, making a long anterior flap. The periosteum was dissected back and the femur sawed through at the junction of the lower and middle thirds. The arteries were found to be extremely calcareous. The muscles were sewed together over the bone with catgut and the wound was closed with interrupted sutures of silkworm gut. The parts failed to heal properly after operation and patient died of asthenia, about two weeks afterward.

The second case was very remarkable from the extensive gangrene, which simultaneously attacked all four extremities, being preceded by previous good health and with only very short premonitory symptoms of tingling, numbness, heaviness and deadness of the extremities. A condensed history, with a photograph of the patient (Fig. 1) and photo-micrographs of sections (Figs. 2 and 3), together with drawings of the parts by H. C. Macatee, M.D. (Figs. 4, 5 and 6), and notes of the pathologist of Garfield Hospital, Dr. Nichols, are here presented. In addition, the notes of the ophthalmologist, Dr. W. K. Butler, who made several examinations of the fundus of the eye at different times is also added.

CASE 2.—*History.*—Maria Harris, colored, aged 35, married, born in South Carolina, laundress, entered Garfield Hospital, Washington, D. C., Nov. 19, 1901, in the service of Dr. J. D. Morgan.

Previous History.—Healthy child, had pertussis and measles in childhood; had rheumatism, principally in shoulders, for two weeks in January, 1901; otherwise enjoyed good health. Always worked hard. Married but no children, no miscarriages or abortions; no menstrual disorders. No history of ergotism, no specific history.

Present Sickness.—Latter part of October, 1901, about midday was taken with severe paroxysm of vomiting, and same day, hands and feet felt numb, and very soon following this (few days) tips of fingers commenced to turn dark and dark greenish, and there was trouble in using them. Had difficulty in walking and found that tips of toes were black and cold; the process beginning at the tips of fingers and toes and working upward, the right hand more than the left. Patient suffered at times, but not greatly.

Examination.—On entrance to hospital, temperature 97.6 F. Anemic. No gastric or intestinal symptoms; bowels regular; appetite good. No respiratory symptoms. Systolic murmur at aortic orifice; heard at apex, but intensified upward toward the second intercostal space, right side. Arteries soft and compressible; no tension or hardness. Leucocytes vary from 6000 to 15,000 per cm. Nov. 26, 1901, leucocytes were 30,000. Urine: sp. gr. 1006 to 1010, otherwise negative. Both legs and right hand highly gangrenous (see Fig. 1); left hand had tips of three fingers black and shriveled; very marked odor; no lines of demarcation.

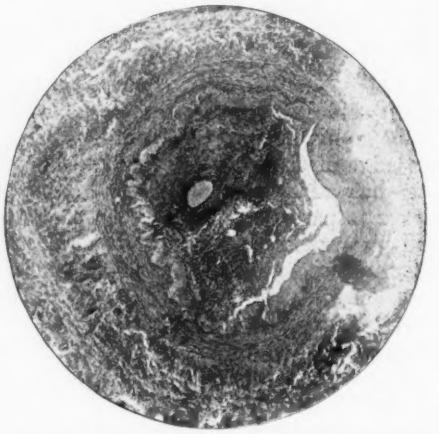


Fig. 2.—Anterior tibial. Magnification 35 diameters. Showing vessel filled with an organized granulation tissue. Little or no thickening of intima.

First Amputation.—Dec. 26, 1901, by Dr. Snyder. Parts all now thoroughly demarked, with healthy granulations. Patient's general condition very good. Removed right hand above wrist and left leg just below knee. Before amputation, temperature most of the time normal, except on two or three occasions it went to 101 F.; after first amputation between 100 to 101 for four or five days.

Second Amputation.—Jan. 16, 1902. Chloroform the anesthetic. Removed right leg below knee. Temperature after second amputation from 99 F. to 101 F. for one day. The three fingers of the left hand required no surgical treatment, but healed gradually and properly, with only the loss of the nails and thickened epidermis.

Results.—May 17, 1902. No return of disease, patient well. Appetite good, is cheerful, has gained flesh, no pain or fever.

Treatment.—Parts soaked daily for 10 minutes in 2 per cent. carbolic acid solution of temperature 110 F.; wrapped in absorbent cotton. Whiskey, strychnia, nitro-glycerin and nutritious diet given freely. Galvanism of parts q. a. d. Anode to spine and cathode to hand or leg (descending). No sedatives or narcotics used at any time.

Macroscopic Examination.—By Dr. Nichols, Dec. 27, 1901: The specimen consists of a leg completely gangrenous from

the middle down. The gangrenous portion is separated from healthy portion by a broad interval of demarcation, 1 to 2 cm., crossed only by tibia and fibula, and a few dead shreds. The stump, above the self-amputated soft tissues, presents a granulating surface. About 5 or 6 cm. of the tissues, above the line of demarcation, were removed in the amputation, and are available for examination. In cross-section, about 5 cm. above the line of separation, the anterior and posterior tibial arteries appear completely occluded by a white tissue. At lower level, 4 cm., these vessels appear similarly occluded, but the material is of a deep brown color, like a thrombus.

Microscopic Examination.—Cross section about 5 cm. above line of separation shows posterior tibial artery completely occluded, and anterior almost, by a growth of connective tissue, continuous with the tunica intima; although directly continuous with the tunica intima, it is different in character, and there *does not appear any real thickening of the tunica intima;* the new tissue has capillaries and small blood vessels. At 4 cm., same condition, except cells filled with brown pigments (broken-down blood pigment). One of the tibial veins and few small arteries show distinct and marked thickening of tunica intima (obliterating endarteritis). Nerve trunks show no morbid changes.

Examination of Fundus of Eye.—Right eye: media clear, retinal arteries apparently normal size, veins apparently slightly enlarged. Left, nerve head not as clear as right, light streak on arteries, not well defined. Vessels appear normal; perhaps slightly smaller in caliber.

Fig. 3.—Posterior tibial. Magnification 25 diameters. Showing vessel filled with an organized granulation tissue. Little or no thickening of intima.

The notes of this case were sent to Professor Osler at Johns Hopkins, and also to Prof. Thomas K. Monro of Glasgow, who has written most extensively recently of Raynaud's disease. The letters of comment on the case are here presented:

BALTIMORE, MD., Feb. 19, 1902.

Dear Dr. Morgan:—Thanks for your paper. What a remarkable case! It belongs to a group of very great interest, and cases are more common in children than in adults. Very much obliged indeed for the photograph. I have long been collecting these cases. You should report it.

Sincerely yours, W. OSLER.

GLASGOW, SCOTLAND, March 20, 1902.

Dear Dr. Morgan:—Thank you very much for the notes of the case of symmetrical gangrene, and for the excellent photo, which reached me in safety.

The case is one of a remarkable group with regard to which anatomic observations such as yours are particularly desirable. In this case, *disease of the arteries is clearly not the cause of the gangrene;* first, because the anatomic investigation appears to exclude it, and second, because the simultaneous and acute or sudden onset in all the limbs is quite inconsistent with such a theory. The history of a recent attack of rheumatism and the presence of a cardiac murmur raise the question of embolism, but we can not suppose that this would occur simultaneously in all the limbs, while sparing the rest of the body. Neuritis is, of course, excluded by the anatomic investigation and by what we know of the symptoms of that disease.

Different views are held by different observers as to the nature of such cases as the present one, and I have briefly alluded to the subject in my monograph (pp. 208-9, 102, 106-7, 173). Prof. Osler ("Prin. and Pract. of Med.," 4th ed., p. 1138) and others admit them to the category of Raynaud's Disease, but to do this, we must make the expression "Raynaud's Disease" more comprehensive than is consistent with Raynaud's own theory of the affection. If an intense increase of vasoconstrictor activity exists in the limbs for a few hours, and then

Fig. 4.—Symmetrical gangrene. Second case.

passes off permanently, leaving gangrene behind it, we can scarcely refer it to increased excitability of the vasomotor. It seems possible that some agent (toxic, reflex or otherwise), having itself only a transient influence or existence in the body, caused an intense but transitory stimulation of the vasoconstrictor center. It is indeed strange that such paroxysms should not recur. With kind regards, yours very truly,

10 Clairmont Gardens. T. K. MONRO.

ETIOLOGY; RELATION OF EACH DISEASE TO OTHER MORBID CONDITIONS.

Both Raynaud's and endarteritis obliterans occur frequently in middle life. Cases of Raynaud's have been

reported as occurring as early as three months (W. W. Johnston), and are more frequent in females. Endarteritis obliterans has been reported as occurring as early as twenty-three, and is more frequent in males. The first symptoms in one of the writer's cases were at twenty-five, and were so severe and progressive that one limb was amputated for gangrene. The development of gangrene in the old rather excludes a diagnosis of Raynaud's or primary endarteritis obliterans. Raynaud found his cases so often in the young that he proposed calling it "juvenile gangrene." Senile gangrene is typically unilateral, and if symmetrical not *synchronously*. The structural change in the blood vessel leading to proliferation of the intima is not sufficient of itself, even in young adults, to make the case pathognomonic of syphilis. The history of syphilis in Raynaud is considered more of a coincidence, than causative agent.

Raynaud contended that one essential was necessary, the successive paroxysms of syncope, asphyxia, leading finally to gangrene; that the paroxysms were spasmodic and that there were frequent and recurrent contractions of the walls of the arterioles supplying the extremities attacked. It was noted that a considerable number occurred in the first ten years of life, then fell off and became numerous again at fifteen to thirty years. The evolution of the nervous system in the female and occupation in the male was put down by Monro as the distinctive cause.

Fig. 5.—Symmetrical gangrene. Second case.

Among rare contributing causes of symmetrical gangrene Raynaud admits valvular defects and congenital narrowing of the aorta and of the systemic arteries. Diseases of the cardio-vascular system are found in fully 12 per cent. of cases, and aortic systolic murmur in 5 per cent. of the 12 per cent. of cardiac cases (Monro). Embolism is rarely symmetrical, and it would be remarkable indeed for emboli to lodge in all four extremities and do no damage elsewhere.

Glycosuria cases are not easily mistaken. The examination of the urine and the whole history and appearance of the parts characterize the diseases. Of the modifications of sensations, analgesia is the most common; although the sense of touch is blunted, still the appreciation between heat and cold is distinct. Warm applications were most grateful in the case of the writer, whereas cold seemed to cause suffering. There is a similarity between hemoglobinuria and Raynaud's disease, in that exposure to cold produces paroxysms; but in the one case the nerves and walls of the blood vessels suffer, in the other the blood and the blood-producing organs; in hemoglobinuria we often find albumin, hemoglobin, and even red corpuscles in the urine. Cases of erythromelalgia seldom lead to gangrene, and are aggravated by warmth and relieved by cold; the pain is generally present and the ulceration is confined to one extremity. Phlebitis leads to moist gangrene; it is seldom symmetrical, and the gangrene is generally fatal.

Among the other causes in Raynaud's disease, heredity is put down as responsible in 8 per cent.; exposure to cold is a predisposing cause, and so also is rheumatism (7 per cent.); malarial fever often seems also associated with the disease. Tuberculosis is found in 6 per cent. of cases. Leucocythemia is rarely noted, but nephritic trouble is associated in 17 per cent. of the cases.

There is little resemblance to peripheral neuritis. The symptoms of incoördination, tenderness of muscles and nerves, with paralyses, make the case clear. There is a large field of cases which has been referred to as acroneuroses (Dana, 1885), under which Raynaud's disease may perhaps be indefinitely classed. Disturbances of the nervous system have been referred to as being the cause in 4 per cent. of the cases. G. S. Badger, M.D., in a recent article, says: "It has been noticed particularly in asylum cases, as a manifestation of hysteria, and as a complication occurring in the course of many organic nervous affections." A letter from the Government Hospital for the Insane, which has nearly 2500 inmates, and the experience of Drs. Richardson and Stack, who have come in contact with over 10,000 asylum cases, would seem to put Raynaud's disease as less frequent in asylum cases than any place else.

Fig. 6.—Symmetrical gangrene. Second case. No loss of fingers; entirely well.

GOVERNMENT HOSPITAL FOR THE INSANE.

A. B. Richardson, M.D., Supt.

WASHINGTON, D. C., May 5, 1902.

Dear Doctor Morgan:—I inclose the data of the case of Raynaud's disease as furnished by Drs. Stack and Pulliam, who had the patient in charge. I am sorry I can add nothing to what is given, as this is the only case I have ever seen. You have, of course, the verbal assurance of Dr. Richardson that in a long experience he has not met with a case; and the case now under consideration is the only one seen during the long service of Dr. Stack in this institution. Hoping that I may have the pleasure of hearing your paper, I am, yours very sincerely,

I. W. BLACKBURN.

SYNOPSIS OF CASE OF RAYNAUD'S DISEASE IN WARDS OF DR. STACK.

"C. Mc., aged 66; married; occupation, laborer and soldier; nativity, Ireland. Previous history, addicted to excessive use of alcohol. He has had epilepsy for several years. Present attack: On February 2 patient complained of his feet paining him very much, and on examination I found that a number of blebs had formed on toes, soles of feet and instep of one foot; these blebs were opened and dressed antiseptically. February 3, examination revealed that the blebs had filled again, and the contained serum had undergone a certain amount of organization; following this the pain passed away and the toes became very black and the superficial structures sloughed off, leaving a pearly white base to ulcer. In a few days the toes became very

much inflamed and somewhat painful, but the pain lasted only a day. The toes remained in this condition for about one month, with but very little change. The ulcers healed gradually, and the inflammation subsided; the nails were cast off about one month after the onset. The patient's toes are now entirely healed and give him no trouble at all."

J. M. PULLIAM.

A case recorded by Dehio, and reported by Monro, offers a striking proof that Raynaud's symmetrical gangrene can occur as an independent and typical disease in persons otherwise healthy: the patient was a woman, aged 31, and the disease followed a severe fright due to an assault at night by several men. There was extensive gangrene and the parts were amputated seven months after the onset. The vessels showed on examination a fibrous endarteritis and endophlebitis. The lumen in some vessels was completely obstructed by partially organized thrombi, but here, too, the fibrous thickening of the intima was distinct.

PROGRESS AND TERMINATION.

Raynaud's disease never causes death and seldom shortens life. Why it should cease is sometimes quite as mysterious as why it should begin. With the gangrene there is seldom any sepsis; the parts tend to demarcation, and it is better not to amputate; anyhow, always wait for healthy granulation. Arterial obstruction in typhoid, which leads to gangrene, is generally fatal. Senile gangrene affects by preference the lower extremities; it is progressive and serious. Other diseases associated with gangrene generally tend to fatal termination.

TREATMENT.

In Raynaud's and those strongly simulating it, the treatment has been given in the history of one of the cases. With regard to the other cases, the treatment is not so successful. A natural and easy trend in life is much better in those with arterial degeneration. The iodids and nitrites are of use. Among the baths, a course of Nauheim (which can be followed here or abroad) give best results. A scrupulous regulation of all the functions of the body, with the avoidance both of alcohol and of choking the system with improper and too much food, and a regular and systematic outdoor life and exercise, are the cardinal points. If gangrene should appear in endarteritis obliterans, the sooner you operate, the better the result.

919 McPherson Square.

A SIMPLE SINGLE-DISC EYE MIRROR.

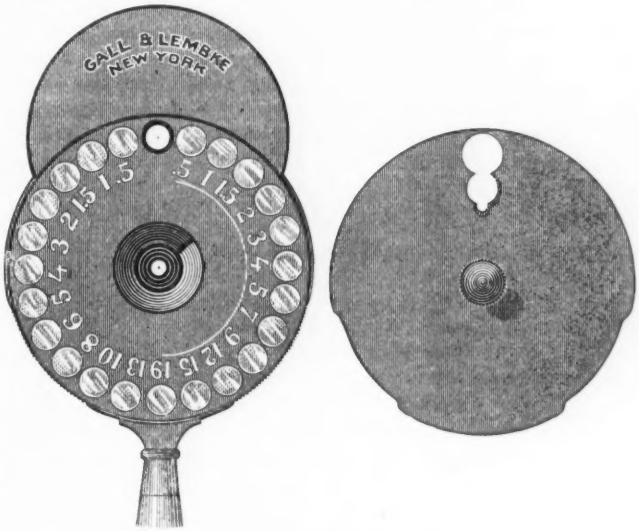
THE WORKING OPHTHALMOSCOPE FOR THE EYE SFECIALIST AND GENERAL PRACTITIONER, AND HOW TO USE IT.*

HERMAN KNAPP, M.D.

NEW YORK CITY.

The many modifications of Helmholtz's eye mirror in the course of fifty years show that there was at first a tendency to simplification, to make the original instrument handier and more expeditious. Thus the small Liebreich's ophthalmoscope, a concave mirror with a clip behind the sight-hole for a few lenses, mainly destined to correct the physician's myopia, readily became very popular on account of its easy handling and the brilliancy of the fundus image, which never has been surpassed. The inconvenient clip was soon replaced by a disc revolving on the back surface of the mirror, putting a number of correcting lenses successively behind the sight-hole. This has been the most important practical improvement of Helmholtz's instrument. Large demonstration ophthalmoscopes soon followed, from Ruete's instrument to Thorner's, the latter being a marvel in distinctness and brilliancy of the picture, which is free from reflexes and larger than the erect image. All those instruments are not for daily practice.

The advantages of determining objectively the optical condition of the eye led to the construction of the so-called refraction ophthalmoscopes. The new features which they introduced were the increase of correcting lenses, to be placed in one or several revolving discs, and the tilting of the mirror by Dr. Wadsworth of Boston, to obviate the disturbing astigmatic effect when the rays of light fall very obliquely on the correcting lenses. Applying those principles in diversified manner has produced a mutlitude of ophthalmoscopes, ingenious in design, complicated in construction, and more or less cumbersome, without surpassing, mostly falling behind, the distinctness and brilliancy of the small Liebreich (he constructed also a large demonstration ophthalmoscope), or the simple mirror with a sufficient number of lenses in a Rekoss disc. The latter is the working ophthalmoscope which I have constantly used in private and hospital practice, and I have not found any occasion to replace it by a better one these thirty years.



The concave glass mirror has a sight-hole of 3 mm. The rotating disc has one empty hole and 23 fitted with small lenses, from + 0.50D. to 12D., and from —0.50D. up to — 20D. The rotating disc applies close to the edges of the sight-hole of the mirror, so that the walls formed by the sight-hole in the mirror and those of the rotating disc which holds the lenses are reduced to the smallest possible dimensions. This is important in order to let enough light through and avoid the unpleasant reflexes from the canal walls. If these walls are well blackened they cast no appreciable reflex on the eye. The blackening is easy, and even if the mirror is constantly used the blackening need not be repeated for many months. I do not usually put my mirror into its case, but carry it in the breast pocket of my coat, constantly taking it in and out. The lenses may gather a little dust, which is easily removed with a camel's hair brush or with a cotton-tipped probe every now and then. What soils the glasses and interferes with sight is fat from the fingers and similar sticky substances which prevent the regular refraction of the rays of light. The correcting lenses are, however, well protected, in front by the mirror, be-

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

hind by a metal plate covering the rotating disc. Two convex lenses, one of 24D., the other of 12D., complete the ophthalmoscope.

The best light for ophthalmoscopy, so far as I know at this time, is an Argand gas burner, or a broad, round oil or kerosene lamp, because both are not too glaring and have the same kind of light which is reflected from the background of the eye, namely, yellowish-red. Electric and Welsbach light have not given me the same satisfaction. Habit plays a great part in this work, and any coming month may bring us a better light for our examinations than gas.

After having made a careful ocular inspection and a cursory functional examination (sight and visual field) of the eye, the patient is taken into a dark room and the anterior part of his eye is examined with oblique light. This is a very important examination, revealing minute abnormities in cornea, anterior chamber, iris, lens and anterior part of the vitreous. After that you examine the patient's eye with the ophthalmoscope by transmitted light, either without or better with a convex lens behind the sight-hole, and see whether you get the normal (uniformly red) fundus reflex or whether it differs from it totally or in one or several parts of the pupil. This reveals abnormities of the refractive media, cornea, lens and vitreous, always using a + lens behind the sight-hole of the mirror, so as to look with relaxed accommodation. For the emmetropic eye this is + 3D. or + 4D., for ametropic eyes their distance glass has to be added. For opacities in the anterior part of the eye a stronger lens is often very useful for distinguishing small objects, such as minute dots on the posterior surface of the cornea, or the fine dots and streaks in primary and secondary cataracts. Unless the eye is very myopic or very hyperopic you see nothing of the background.

The background can be examined in the inverted or in the erect image. I have been taught to begin with the inverted image, also using constantly a + lens of 3D. or 4D., so as to get into the habit of always looking with relaxed accommodation, which will give an enlarged image, almost the size of the erect. The patient stands or sits near the light, you throw the light into the pupil (previously dilated if too small), then you hold the +12D. lens 3" before the eye, so that the light passes through the lens and pupil to the retina and choroid, from where it is reflected on the same way into your eye, giving you an inverted image of the objects in the fundus. The technic of all this is best acquired from an instructor. By this method you receive a smaller image, but you overlook a much greater part of the background than with the direct method (erect image). You move your head from one side to the other and let the patient look about so that you obtain a perfect survey of the eye, and can, in most cases, make a satisfactory diagnosis of the condition of the background.

If there are parts which you do not see large enough, you have to examine the eye with the *direct method* (erect image). For that you turn the Rekoss disc in such a way as to have the empty hole behind the sight-hole, place the patient two feet before the light and look into his right eye with your right, into his left eye with your left, as close to his cornea as 13 mm. if possible. In this position the visual line of the patient, your own visual line, and the pencil of light passing from the lamp into your eye are sufficiently in the same direction to cause no distortion of the fundus-picture. This position, upon which Helmholtz dwells, allows you to dispense with the tilted mirror. I have often made control examinations with a tilted and with a fixed mirror, and have arrived at the same result with regard to the optical condition and the shape of the objects in the background. If, as it is customary, the patient is placed sideways of the light, then the rays passing through strong lenses behind a fixed mirror cause sufficient distorsion to vitiate the result of the examination. It is advisable for beginners, and also with narrow pupils or dull media, to have the pupil dilated, best with a drop or two of a 5 per cent. solution of euphthalmin, or with ¼ per cent. or ½ per cent. solution of homatropin.

So much, gentlemen, I would ask your indulgence for a plea to use a simple ophthalmoscope. The complicated instruments mostly do not indemnify us for the loss of time required in their use. An excellent teacher (Robert Koch) advised me in the outfit of the microscope to have only three lenses, one with 30 to 50, another with 300 magnifying power, and a third an oil immersion of 1/12; "the others are useless." With regard to the two methods of ophthalmoscopic examination, I frequently see young oculists who come to my clinic use first and only the direct method and pass an inordinate time in looking into the patient's eye without finding what I direct their attention to. When I ask them why they did not examine the patient in the indirect method, they answer that they had been taught the direct only, and had been told the indirect was superfluous. As this has also been expressed in some of our modern text-books, I should like to know whether this opinion is prevailing. I, from my experience, would regret if the method of examination in the inverted image were to be neglected, for I find it indispensable.

"A certain profession of dogmatism," says a great surgeon in an address to medical students, "is essential in the treatment of the sick. The sick man will allow of no hesitancy in the recognition of disease. He blindly demands that the appearance of knowledge shall be absolute, however shadowy and unsubstantial may be the bases of it." But is this good advice? It is, so far as the patient is concerned, usually true at the time of illness, but there are several other considerations which we believe make the advice to the physician the reverse of wise. In the first place there are the patient's relatives and friends. Even in hospital practice and in private practice among the poor it is not true that the physician succeeds in humbugging the friends by an assumed dogmatism without the reality of knowledge and conviction. Among intelligent laymen, far more frequently than is supposed, one will find that any such sham certainty is at once detected. Doctors make a great mistake when they think their deceits really deceive. Then there is the patient who recovers. When he is well the false diagnoses, the changes of dogmatic opinion and medicines, the blind alley of proved errors—these are thought over, and the doctor is scorned, not loved. This is, in fact, the origin of the famous saw concerning the wish of the devil to become a monk when he was sick, etc. Thirdly, comes the reaction on the dogmatist's character. One can not dishonestly assume knowledge, and skill, and prophecy without at last fooling himself, and he then enters upon a life of continually descending tactlessness in which the fraud becomes proportionately more evident to others as it becomes more unconscious to self. The profession suffers also, because to it is charged the sin of the tricky doctor. Slyness, assumed virtues and knowledge, cunning—these do, in fact, prevent true professional success. But the foolish sly ones will never find it out.—*American Medicine.*

No Ice-Cold Drinks in Berlin.—The municipal authorities of Berlin, with a fatherly solicitude for the stomachs of the burghers intrusted to their guidance, have issued a decree that no iced drinks shall be sold in any place of public refreshment in that city. The limit of frigidity allowed is 10 C., or 50 F.—*Medical Record.*

ASSOCIATED MOVEMENTS OF HEAD AND EYES.*

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PHILADELPHIA.

In order that the body may properly perform its functions and all the organs act in harmony, a certain reciprocity must be maintained between the different parts. Nowhere is this reciprocity, this association of action, better observed than in the movements of the head and eyes. Upon account of the protected position of the eyes and the direction of the plane of the orbit in the human skull, the field of sight is restricted much more in man than in some of the lower animals where the eyes are much more mobile, and were it not for the increase in the range of the field of sight which the rotation of the head affords, man would be unable to perceive many side objects without change of position of the entire body. Not only does the head, however, by its movements, augment the range of the field of vision, but it also supplements the action of the extra-ocular muscles in the delicate task of maintaining proper visual axes. To properly perform this two-fold task the head is provided with numerous and intricately acting muscles, and it is only when we remember that there is scarcely a position assumed by either the eyes or head in which the action of both parts do not enter, that we realize how intimate the relationship between the extra-ocular and cervical muscles is; indeed, it might be added the musculature of the entire body as well, for it is usual for the muscles of the trunk to be implicated in a greater or less degree in all vicarious positions of the head.

It is not the intention of the writer to approach the subject of these associated and vicarious movements from an anatomic or a physiologic standpoint, but rather to record some clinical observations which he has recently had an opportunity of making on several subjects who presented such movements. To facilitate this study the movements of the head and eyes which may occur in association have been classified into four groups:

1. MOVEMENTS WHICH ARE PHYSIOLOGIC.

Under the class of physiologic movements are included the many and varied movements which the head makes through the medium of the neck muscles in supplementing and augmenting the action of the extra-ocular muscles. Such movements are often involuntary and are almost constant; and though their mechanism is complicated and intricate by reason of the close association in the cerebral innervation of both extra-ocular and cervical muscles, both sets are enabled to act in perfect unison.

2. ABNORMAL INDEPENDENT BUT SIMULTANEOUS MOVEMENTS.

Movements which are abnormal and though simultaneous and having the same pathologic origin are not related in the sense of being dependent on one another, constitute the second class. Under this is included the accidentally simultaneous occurrence of nystagmus and head tremor in certain diseases of the cerebrospinal system, as, for example, in disseminated sclerosis and in paralysis agitans. As is well known, nystagmus is one of the characteristic symptoms of disseminated sclerosis, while head tremor is a comparatively unusual manifestation; yet both the movements in the eyes and the tremor in the head may occur in the same subject at the same time, without either being responsible for the other, the associated conditions being due to sclerotic foci in the vicinity of the nuclei of both sets of muscles. In paralysis agitans the head not infrequently presents conspicuous tremor in consequence of contractions in the superficial and deep cervical muscles, but the muscles of the eye are but rarely affected. Debove, however, has noted in rare cases a retardation in the movements of the eyes which, if the patient was reading, occasioned a characteristic pause at the end of each line, and Galozowski also has observed imperfect movements of both eyes and head in this disease.

3. COMPENSATORY MOVEMENTS.

The third class is a vicarious position of the head, assumed to compensate for some imperfect action of one or more of the extra-ocular muscles. On account of the close physiologic association between the extra-ocular, the cervical and some of the trunk muscles, in the event of the failure of one of the eye muscles to properly perform its function, this latter may be assumed by some of the muscles of the other groups, but always at the expense of the proper head posture, for a deviation in one set of muscles can only be compensated for by a secondary deviation elsewhere. This act of compensation is well seen in paralysis of an eye muscle, where it is a known law that to avoid the diplopia and visual vertigo which such a palsy occasions, the head is turned in the direction of the affected muscle, thereby supplementing its action, so that for every variety of palsy there is a characteristic pose of the head. A similar deviation, though to a less extent, may be observed in cases of imbalance of the extra-ocular muscles which are latent, the so-called phorias.

An extremely interesting class of cases which the writer would include in this group, as an example of compensatory head movements, is the wry neck, which has been observed in a few cases after palsy of one of the muscles controlling the vertical movements of the eyes. Though this condition was first described by Cuignet in 1873, this writer did not place quite the true interpretation on his observations, as he considered the ocular condition to be one of strabismus in association with hypermetropia, and credit should be given Wadsworth for first attributing torticollis to a paralysis of one of the eye muscles. The report of a case of this nature by this author may be found in the transactions of the American Ophthalmological Society for 1887, as well as brief mention by Risley of two cases of a similar character which had occurred in his practice. Since then five other cases have been recorded, all of which presented much the same features: paralysis of one of the vertical eye muscles and an obliquity of the head occasioned by spasm of the sterno-cleido-mastoid muscle.

Of the six reported cases (those by Risley are excepted on account of insufficient data) Nieden summarizes that the torticollis followed a paralysis of the superior oblique of the left eye, with obliquity of the head caused by traction of the muscles of the right side in three cases; in two the same muscle traction followed palsy of the right inferior rectus muscle, and in his case alone paralysis of the superior rectus of the left eye caused a contraction of the sterno-cleido-mastoid muscle of the same side. Graefe, however, questions the accuracy of Nieden's diagnosis, and states that the palsy in Nieden's case could not have been of the left superior rectus, but rather of one of the muscles which pulled the right eye downward, i. e., the right superior oblique.

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

To these cases of torticollis of ocular origin the writer desires to add another.

CASE 1.—L. D., aged 9, was sent to the writer in May, 1900, by Dr. Alfred Hand, Jr., with the following note: "L. D. was a patient of mine in his infancy. Even at that early date I noticed a wry neck and once in holding the head straight, for the muscle was not permanently contracted, I saw a downward deviation of his right eye, which I thought might be the cause of his holding his head to one side. The case passed from under my care for several years, but seeing him again and finding the same conditions still present, I am referring him to you for an ocular examination."

On questioning the mother, it was elicited that a few days after birth the attending physician noticed a peculiar winking of the right eye and that shortly after this it was remarked that the head was drawn toward the right shoulder. Labor had not been unduly prolonged and forceps were not applied. The peculiar appearance in the right eye soon took the form of a distinct "cast," and the head was held constantly crooked. The muscles of the neck were never rigid but the head could always be straightened without difficulty. Recognizing the importance of early treatment, the child was taken to the Jefferson and later to the University Hospital, and notwithstanding that the general condition, which was somewhat impaired by rickets, improved under general medication, the wry neck did not respond either to the systemic treatment or the local application of electricity. When 22 months old, the child developed a retropharyngeal abscess, for which he was successfully treated by Dr. Hand.[1] Between the ages of 4 and 6 years, the child had frequent attacks of dizziness and on several occasions received severe falls from stumbling. Neither the mother nor the child remember his ever having seen double. When six years old he was given glasses, with marked relief to the dizziness and stumbling but without effecting any change in the axis in which he held his head. The writer first saw the child when he was 7 years old, and noted at that time the following condition: Child is apparently well nourished, but persists in drooping his head upon the right shoulder while the face is turned toward the left, the position being that which is occasioned by contraction of the right sterno-cleido-mastoid muscle. With the head in this deflected position the eyes are apparently on a level, but when the head is straightened, which can be done without difficulty, owing to the ready relaxation of the muscle, it is at once remarked that the visual axis of the right eye is turned down and that the patient fixes with his left eye. Vision and accommodation were normal in both eyes, the pupils were of equal size and responded well to light and accommodation stimuli. On account of there being crossed diplopia in the upper field, and the image of the right eye being higher, as well as the restriction of the movement in the right eye upward, and especially up and in, it was thought that the superior rectus muscle in the right eye was the muscle at fault. An operation to bring the visual axes of both eyes on the same level being refused the hypertropia was partially corrected by means of vertical prisms, but though these lenses have been persistently worn during the past two years, they have exerted no apparent influence upon the position of the head, owing partly to the fact that the prisms were inadequate to correct sufficient of the hypertropia to establish binocular vision and partly also to the fact that the deviation in the head had been of such long standing that secondary deflection had occurred in the spine, which tended to fix the deformity.

The accompanying photograph (Fig. 1) illustrates the position of the head and shows the left eye fixing while the right is deviated on a lower level.

4. RELATED BUT NOT COMPENSATORY MOVEMENTS.

The last class includes movements of the head and eyes which are abnormal and bear a direct relationship to one another without being compensatory. Cases of this class are those in which the anomalous movements of both head and eyes are probably the result of a central lesion. The most familiar instance of this class is the simultaneous movements in head and eyes which occur in conjugate deviations after the involvement of certain portions of the brain, as, for example, cases of brain abscess, and not infrequently during the attacks in paretic dementia.

Another type of this class is the cases of head jerking associated with nystagmus which occur in young children—cases of so-called spasmus nicitans. In this disease the child moves its head rapidly, either from side to side or up and down—or at times with associated horizontal and vertical movements, while the eyes make rapid nystagmic movements. The direction of the head movements and those of the eyes may correspond, but this is not invariable, as the nystagmus may assume all forms and may be limited to one eye. Though, as a rule, synchronous movements of the globe are much more rapid than those of the head, at times the movements of the head and eyes are independent of one another. The nystagmus is aggravated by holding the head quiet and by making the eyes fix. In addition to the jerking movements, the head is not infrequently turned to one side or thrown back, probably in compensation for a faulty-acting eye muscle, for in addition to the nystagmus marked deviation in the visual axes, with strabismus, has been noticed in a large number of cases.

Fig. 1.—Torticollis due to hypertropia.

The absence of any pathologic changes which has been noticed in the few cases which have come to autopsy and the invariable tendency which these cases have to recover, has led Haddon to the assertion that the head and eye movements in this class of cases are due to an "instability of the motor centers above the nuclei, in the spinal cord and fourth ventricle, presumably the cerebral cortex."

It has been observed, however, chiefly by Randnitz and Caillé, that if the eyes are bandaged the motions of the head cease. Randnitz noticed also that the head movements were most influenced by the direction of the visual axes, that they ceased when the eyes were deviated

1. Archives of Pediatrics, July, 1895.

in certain directions and started up again as soon as they were rotated from this position.

Though there is ground from Randnitz's experiments that the head motion may be compensatory to an initial eye lesion, the nature of the affection is still in doubt, and it is probable that the ganglion cells which innervate the muscles of both head and neck are simultaneously affected by an exhaustion or irritation process. Rachitis and other nutrimental disturbances are common in this class of cases, and occurring as they do at the age when the association between head and eye movements is being perfected, probably act as the predisposing cause.

Under this class would fall also the wagging of the head which occasionally accompanies the eye movements in miner's nystagmus, both the head and eye movements being due to motor exhaustion of the cortical centers which govern the muscles of the head and eves respectively. The writer desires to report under this class a case which is not very dissimilar from those of spasmus nicitans.

Fig. 2.—Synchronous movements of head and eyes.

CASE 2.—In June last a colored child, aged 8, consulted him at the Polyclinic Hospital. The following history was obtained: The child had always been healthy, but when it was about 5 years of age the mother noticed that its head moved from side to side, especially when regarding near objects, and queer movements were remarked in the eyes also. These movements were quite constant, were never very rapid or violent and ceased when the child was told to control them. Glasses had been prescribed, without exercising any apparent effect upon the movements of either head or eyes. At the examination it was noted that when the child walks about or when her attention is not attracted, the head is turned toward the left and slightly down, and very perceptibly rotated from side to side. These movements are regular and rhythmical and quite under the control of the will.

Inspection of the eyes reveals that they are in motion also and that there is a convergent strabismus of pronounced degree in the left eye. In contradistinction to the movements of the head, those of the eyeballs are vertical and slightly rotary, this being the more pronounced in the left eye. The nystagmic movements of the eyes are more frequent than those of the head in the relationship of five movements of the eyeball to two of the head. The head and ocular deviations are well shown in the accompanying photograph (Fig. 2).

With the exception of a high degree of far-sighted astigmatism, both fundi were normal and vision could be brought to 5/7½ in each eye by the proper lenses. Notwithstanding this degree of visual acuity in both eyes, it was impossible to elicit double images, so that it could not be definitely ascertained which muscle or muscles of the left eye were at fault. As, however, the position of rest of the eye was constantly one of convergence, and as the upper and outer movements of the globe seemed to be most restricted, it was thought that the ocular condition could best be explained by a palsy of the inferior oblique muscle of the left eye, with perhaps a paretic condition of the superior and external rectus muscles.

The child was well-nourished and strong, playful and happy and gave no evidences of rachitis. There were three other children in the family, all of whom were healthy and none exhibited abnormal head or eye movements. With a view of determining the existence of any other nervous manifestations, the case was sent to the nervous department for examination. Dr. William G. Spiller, the professor in charge, reported as follows:

"The little girl, M. G., has no important symptoms other than the lateral movement of the head and the vertical nystagmus. I noticed that she shakes her head slightly from side to side at times, and that there is a tendency for the chin, more than the whole left side of the face, to be turned toward the left; a position that would be produced by the action of the right sterno-cleido-mastoid muscle. I have thought it possible that the vertical nystagmus—which seemed to me to be only in the left eye—might be the result of weakness in the ocular muscles to which you refer; and that the lateral movement of the head might have a similar cause, viz., slight weakness of the left sterno-cleido-mastoid muscle. I could not obtain any history of birth injury to this muscle, or of any subsequent injury, but it seems at least possible that if the left spinal accessory nerve were weak the sterno-cleido-mastoid muscle might be innervated incoördinately, and that in this way a lateral regular movement of the head might be established. This is offered merely as a possible explanation of the case. The knee-jerk is normal on each side. Sensation is normal and there are no hypersensitive zones."

THE PRESENT ASPECT OF THE TUBERCULOSIS PROBLEM IN THE UNITED STATES.

S. A. KNOPF, M.D.
NEW YORK CITY.

(Concluded from p. 1314.)

After this general comment I will take up some of the states individually. Dr. William Duffield, Phoenix, Ariz., tells me that there is no board of health in the territory. Just think of it! Arizona, the place which is perhaps more sought and visited by consumptive invalids than any other, has no board of health, and consequently no laws nor regulations concerning tuberculosis in man. No circulars nor ordinances are issued. The town of Phoenix has an anti-spitting ordinance, but the law is a dead letter and has never been enforced. There is no sanatorium or special hospital for the exclusive treatment of tuberculosis in Arizona and no society for the prevention of tuberculosis. In his letter to me, Dr. Duffield lays particular stress on the sad fact that there is not a single place in the whole territory where the poor consumptive can receive shelter and treatment, and he also says "thousands of patients are sent here annually, hundreds of whom have but a few dollars when they arrive." But the climax of all this, it seems to me, is reached by the report that "the most stringent and rigid laws to combat bovine tuberculosis with the very best possible execution of the same are

carried out." How little importance seems to be attached in that territory to the danger of the propagation of tuberculosis from man to man and how much from animals!

From the report received from New Haven, Conn., I quote the following: "Twenty-five thousand dollars was appropriated to the Hartford Hospital to establish and conduct an experimental hospital for consumptives." Professor Lindsley very justly adds: "What the experiment is to be I do not know." It seems to me that the $25,000 appropriated for the treatment of consumptives according to the already known methods which have proved so efficient would certainly accomplish a great deal more than this experimental hospital.

Another interesting point in connection with Connecticut legislation seems to be revealed in the following report, which says: "We had some laws to combat bovine tuberculosis, but they have been repealed." In connection with this state I must mention yet the report which came to me from Mr. Ward Bailey, clerk of the New Haven City Board of Health. On the inquiry whether there existed any circulars of instruction he said that he thought there were none. Yet the State Health Department of Connecticut which has its office in the same city from which Mr. Bailey sent me the report, has issued a most admirable circular, entitled "Consumption, Its Cause and Means of Prevention." The lesson which we learn from such a situation is evident, namely, that it does not suffice for a board of health to issue circulars, but it must also see that these circulars are widely distributed, and that at least all the employes of the health departments in the same state should know of their existence and be familiar with their contents. My question, "Is there any private or public institution for the exclusive treatment of consumption in your state or near your city?" which was addressed to the state as well as to the city board of health, was answered in the negative by both departments, yet there has existed for over a year in New Canaan, Conn., a private sanatorium for the exclusive treatment of consumption, of which Dr. M. J. Brooks is the physician in chief. Now I may be asked why should boards of health officers be expected to know of private institutions which treat consumptives? My answer is, they should know of all such institutions and should supervise them; leaving aside the value of the information which should be necessary for statistical or sanitary reasons, no hospital for communicable diseases should exist in any state without the knowledge of the board of health. The same criticism I must make in regard to the report I received from the State Board of Health of North Carolina. On the question, "What private or public sanatoria for the exclusive treatment of consumptives exist in your state?" I received the answer, "None." There are no less than three institutions in North Carolina, their existence having been reported by Dr. Ambler[1] of Asheville.

From the Health Department of the District of Columbia I received the following reply: "A letter is sent to such physicians from whom a death certificate has been received, giving the cause of death as tuberculosis, recommending the disinfection of the premises." This is doubtlessly a good recommendation, but I venture to say that if the recommendation would be extended so as to read: "The disinfection of the premises inhabited by a consumptive person is not only urgently recommended after death or removal, but also at regular intervals during the lifetime of the invalid," it would be far more effective. The same suggestion I venture for Toledo, Ohio, where the report reads: "We are fumigating all houses of tuberculous people after death has occurred."

The secretary of the State Board of Health of Illinois did not know of the existence of the Illinois Society for the Prevention of Tuberculosis. Such a society should not only be known to the State Board of Health, but should be in permanent communication with it.

In contrast to this state of affairs I was pleased to learn that the secretary of the State Board of Health of Maine, Dr. A. G. Young, is at the same time the secretary of the State Sanatorium Association, and the Governor of the state is president.

From the state of Michigan, where such excellent work is done in general sanitation and in regard to the spread of tuberculosis from man to man, it is surprising to hear the following report, kindly sent to me by Dr. Baker: "If a case of tuberculosis in an animal is reported to the State Live Stock Commission, that commission is not legally bound to take action for the protection of the human species, but only to restrict the spread of the disease among animals." The destruction of tuberculous food products to prevent them from being consumed by men seems thus not to enter the province of the Live Stock Sanitary Commission.

From Missouri, thanks to the courtesy of the secretary of the State Board of Health, I learn that there is a special institution for the treatment of tuberculous insane, but nothing whatsoever is done for the sane tuberculous patients.

The Territorial Board of Health of New Mexico has a school law which makes it a prerequisite for all teachers of the public schools to furnish a physician's certificate that they are not afflicted with tuberculosis. The City Board of Health of San Francisco goes a little further and makes not only the same prerequisite to employment of teachers, but has also a provision to dismiss teachers who become afflicted with tuberculosis. The inefficiency as well as the injustice of such a law must be evident. A law which does not provide for the regular and periodical examination of school teachers can not possibly be effective in protecting a school from the presence of a consumptive teacher. So much for the deficiency of the law, but what about its justice? Is it right and just that school teachers who are discrete and intelligent and presumably educated in the simple means in preventing the spread of disease, are excluded from the public schools and the pursuance of their vocation, while any number of children who may be tuberculous are permitted to attend school, and, owing to their ignorance, infect their little comrades and perhaps the school teacher as well? I am not in favor of allowing consumptive teachers to pursue their vocation, for I believe their chances for cure are greatly diminished by the deficiency of good and pure air, characteristic of school rooms, but I honestly believe there is more danger from the spread of tuberculosis from child to child than from teacher to the children.

In Rhode Island the only circulars issued are those sent out with the bottles which are intended for the collection of sputum and those circulars which are returned with the positive report. In other words, there must be a demand for the examination of sputum before the board of health issues circulars of information. It would seem to me that the public should be informed a little earlier concerning the danger from infectious sputum. Dr. Swarts, the secretary of the State Board

1. "Public Sanitaria." THE JOURNAL A. M. A., Jan. 18, 1902.

of Health, very kindly called my attention also to a defect in Rhode Island's bovine laws. I gave the detailed report in its place, and here will only call attention to the fact that the farmer is not compelled to submit his cows to the tuberculin test until he wishes to, consequently he may utilize the animals for milk production until the last stages of the disease, and when they fail to give milk he can sell the diseased carcass to the state for half of its appraised value.

The State Board of Health of Tennessee has adopted resolutions concerning tuberculosis, anthrax and glanders in animals. They read as follows:

Resolved, That this board hereby gives notice that all persons are prohibited from selling milk, or other dairy products intended for human food, from cattle infected with either tuberculosis, anthrax (charbon) or glanders.

All persons are prohibited from skinning, selling, or otherwise making use of any part of any animal dead from anthrax (charbon) or glanders, and from throwing such dead animal into any pond, lake or running stream.

These resolutions are deficient in two points: First, they do not cover the danger which may arise from feeding animals with tuberculous products; for example, when calves or swine are fed with tuberculous milk or other tuberculous dairy products. Again, the second portion of the resolution does not include tuberculosis, and anyone may do with a dead tuberculous animal what he pleases.

The state of Texas distinguishes itself by an admirable enterprise. It has an agricultural colony for tuberculous prisoners. The result has been surprising. A large number of prisoners have been cured, and during the first year $25,000 remained as net earnings of this philanthropic enterprise. There is no other state or private institution taking care of consumptives in the large state of Texas, the tuberculous prisoners alone are well provided for. This should give us much food for thought as to what to do with our consumptive poor in the earlier stages of the disease who are not criminals. A similar situation exists in Minnesota, where there is a special hospital for tuberculous prisoners.

The most striking and bold items of the many circulars I have studied are in the one issued by the young Washington State Board of Health. Here are a few of them:

RULES FOR THOSE WHO WOULD AVOID CONTRACTING THE DISEASE.

Summer and winter, women must wear skirts that clear the sidewalk. Avoid all kinds of fur or other soft trimmings around the lower border of dresses. Americans are expectorating animals. Note the filth, especially the spit on the sidewalks. Skirts drag through this, are taken home, dried, brushed and cleaned, and thus disease germs are introduced into the household.

Never put coin or other money into the mouth.

Do not forget that every case of consumption comes from some person or animal that has consumption. Do not spit in the cars, churches, theaters, sidewalks or other public places. If you do, the consumptive will do the same, and thus spread the disease.

As far as I could learn from the careful perusal of all the reports Boston is the only city which makes removal of a consumptive to a hospital compulsory in case proper care and isolation can not be procured for him at home.

From Pittsburg, Pa., we learn an important lesson in the need of combined action of state and city boards in the prevention of bovine tuberculosis. Dr. Matson very kindly writes me in this regard: "There are no measures, laws or regulations to combat bovine tuberculosis in our city, except what indirectly results from inspection of dairies within the city limits. This has had some effect in driving the dairies outside, where they have been beyond our control until very recently."

From so large a city as New Orleans I received a negative reply to all my questions. The very amiable secretary, Dr. Sidney Theard, expressed his regret that tuberculosis has not received in his city the consideration it deserves. He mentions that a committee has been appointed to establish a state sanatorium, and he adds: "there the matter rests; doubtless the truth of science will eventually prevail." This shows that the fault does not always rest with the boards of health, but rather with the powers behind the throne.

While it is now universally recognized that the main source of the propagation of tuberculosis comes from man and the infection from beast next, the commissioner of health of Minneapolis writes: "All laws and regulations in effect in this city for the purpose of combating the spread of tuberculosis are confined to a rigid inspection of the cattle from which we get our milk supply. Every herd is tested once each year, and cattle found to be infected are condemned and killed."

To judge from the letter sent to me from the health officer of Louisville, Ky., he, like Mr Bailey from the New Haven city board, is not aware of the existence of an excellent circular issued by the State Board of Health in regard to the prevention of consumption.

RECOMMENDATIONS BY THE AUTHOR.

In presenting to you this report permit me in conclusion to suggest a few thoughts which have come to me during what I believe to be a careful study of the situation as it presents itself at this moment. There is no gainsaying that, compared with the situation of five years ago, we have made good progress in our anti-tuberculosis crusade. While a few states and cities have remained stationary, and some have even retrogressed, of the majority I can report progress. Anti-spitting ordinances have multiplied, thus showing that most health authorities consider indiscriminate expectoration the greatest source of infection. I heartily agree with this view, but I wish that our sanitary authorities would go a little further and not only prohibit expectorating in certain places, but also provide receptacles so that those who must expectorate may have an opportunity of doing so without offending others or doing harm. There are many ways of providing expectorating facilities, and I would not wish to be dogmatic in this respect. The ideal would, of course, be for everybody who is tuberculous, who has a chronic nasal or bronchial catarrh, grip, or is recovering from measles or pneumonia, or who chews tobacco, to use as a receptacle a pocket flask which would be unbreakable and could be used without attracting attention.

A CONVENIENT POCKET FLASK.

I take pleasure in showing you here a little model which, perhaps, answers all the requirements. As you see it is oval in shape and can be conveniently placed in a pocket. It is about 3¾ inches in height, its longest diameter is 2¾ inches, and its shortest diameter 1½ inches. The opening is round and has a diameter of 1½ inches. A movable funnel prevents the contents from soiling the cover, acting on the principle of the reversible inkstand. The flask is made of spring brass and is electro-nickel plated. Two seamless brass cups are welded together, forming the flask, to which the cover is firmly soldered and the funnel spun (seamless) with a flange fits exactly on the rim of the cup. The cover is closely fitted with an elastic rubber ring for the purpose of preventing leakage. There is a strong spring

catch which serves for opening and closing, and the flask can be manipulated with one hand by pressing

Nickel-plated, oval-shaped pocket flask. Manageable with one hand.

with the thumb against the opening spring and closing the cover with the index finger. By the aid of a wire

The same, hidden in the folds of a handkerchief.

hook the funnel can easily be removed and the flask emptied. By placing the flask in the center of a mod-

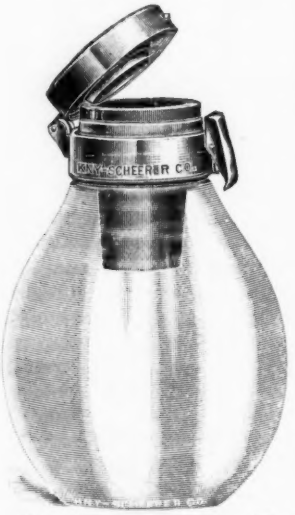
Method of emptying the flask.

erate sized handkerchief, taking up the four corners and putting an elastic band around the neck of the flask outside of the handkerchief the cuspidor can be used without attracting any attention.

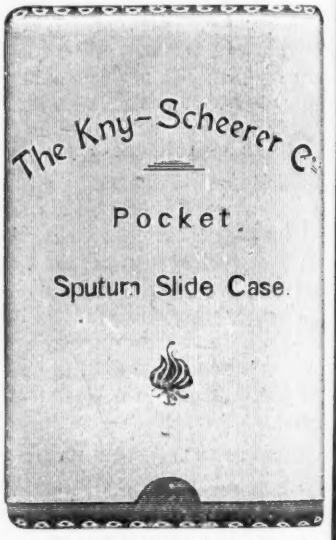
Round-shaped, nickel-plated pocket flask. Manageable with one hand.

Cheap metal flask with bayonet closure.

I also show you here a few other less expensive paper spit cups and pocket flasks which may well answer the purpose of distribution among the consumptive poor in dispensaries and special hospitals.

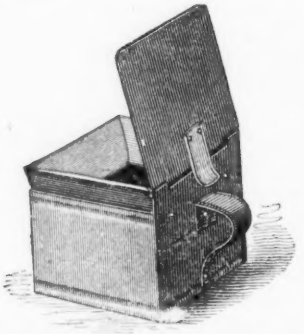


Blue glass sputum flask. Manageable with one hand.

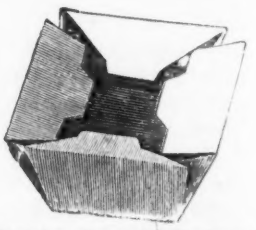


Pasteboard sputum case, resembling cigar case.

For the use in public institutions, in corridors and grounds I would recommend an elevated spittoon which has numerous advantages over the ordi-



Frame for Seabury & Johnson's sputum cup.

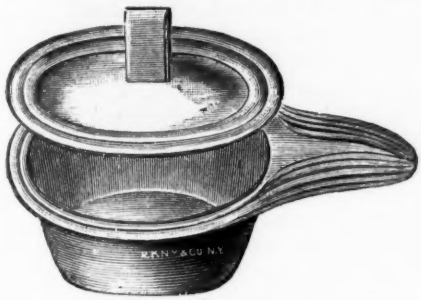


Pasteboard cup for Seabury & Johnson's frame.

nary spittoon placed on the floor. The latter is unsightly, may be tipped over, and usually presents on its

rim or on the outside dried sputum which did not reach the receptacle proper. Having no cover these old-fashioned cuspidors allow animals and insects to get at the contents and thus help in the dissemination of the bacilli.

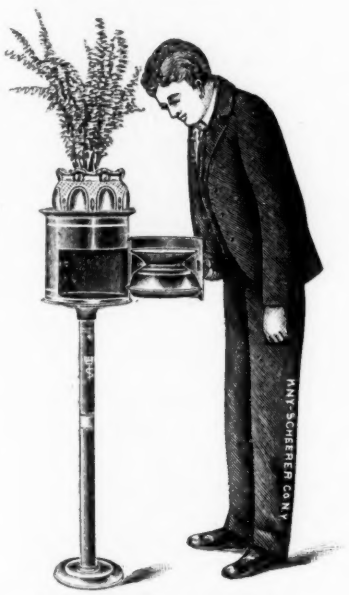
The stand of the elevated spittoon is 3½ feet in height and consists of iron tubing with a bottom plate which can be screwed on to the floor or fastened to a sunken board when used out of doors. The large cast-iron base, however, is in itself sufficiently heavy to prevent the spittoon from tipping over. On top of this



Pasteboard sputum cup for bedside.

Metal spit cup for bedside.

tube is a round box of sheet iron, with a door which can be tightly closed. Attached to this door is a ring in which rests a blue or white enameled iron spittoon. Thus, when the box is opened the spittoon is drawn forward and ready for use. The top of the stand is provided with a rim to facilitate the placing of a flowerpot or other ornament. These elevated spittoons, only visible when in use, by their convenient height and easy manipulation make the deposit of the sputum into the cuspidor more certain than in the case where spittoons are placed on the floor.



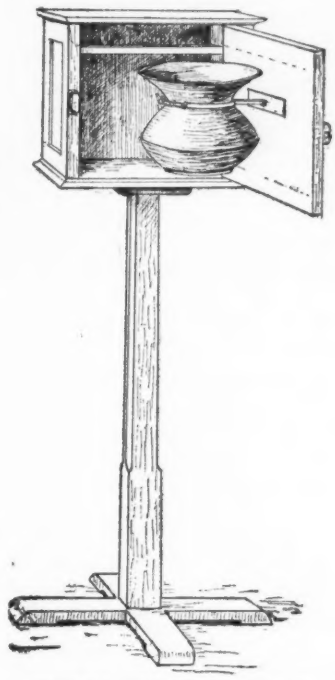
Elevated spittoon, entirely of metal—when in use.

The same, closed.

A similar elevated spittoon stand can be made of wood, which would make it considerably cheaper. (See figure.)

Proedohl's enameled iron spittoon can also be suspended at any height, and is particularly suitable for use in workshops and factories.

For street use, particularly in health resorts, I have devised the following receptacle, which might deserve the name, "public self-cleansing spittoon." It is 39 inches in height, supported by heavy tubing; the receptacle is made of heavy copper coated with pure tin on the inside, to the upper edge of which is screwed a perforated lead pipe which supplies the water for constant flushing. The receptacle is 9 inches in diameter, 5 inches deep, with a funnel-shaped bottom 3 inches deep, fitting into a 2-inch iron cylinder support, which also serves as a connection sewer, and this support is attached to a heavy cast-iron base. The lead-pipe water supply passes along the inside of the apparatus and can be attached to any hydrant.

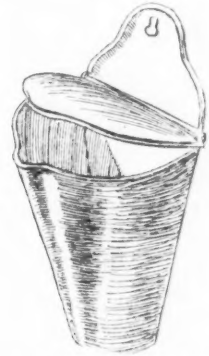


Elevated spittoon, stand of wood—open.

Elevated self-cleansing street spittoon.

A UNITED STATES BOARD OF HEALTH.

Concerning the circulars of information, you have observed what a variety of views are expressed, and you will all agree with me that it would be a splendid thing if a committee with some authority, comprised of the leading sanitarians of the country, could come together and formulate such circulars of information. With



Proedohl's enameled iron spittoon, to be suspended at convenient height.

the vast difference in the variety and the deficiency of the laws concerning the combat of tuberculosis in man as well as in beast you are likewise familiar, and the only remedy I know of is a ministry of health in Washington—a United States Board of Health—to be in constant touch with all the states and city boards of health in the Union, with universal and effective laws

to combat tuberculosis in man and beast throughout the Union.

THE CONDITIONS IN CUBA.

How much good and effectual work our federal government can do in the combat of any disease has been shown in Havana. I shall not speak here of the simply marvelous way in which Governor-General Wood, whom we may justly call our own, since he belongs to the medical profession, has freed Havana from yellow fever; but I shall only report here the replies which have been received in answer to my inquiries concerning the work on tuberculosis. There is a military order directing that all cases of tuberculosis must be reported to the sanitary department under the classification of contagious diseases. Ten stations have been established in the different districts of the city for the collection of sputa, etc., sent by physicians. These are collected daily at 8 a. m. and forwarded to the bacteriologic department, a notification being returned to the physician, stating the result of the examination, and a record of the case is kept on file. If the patient is in a grave condition and is unable to be provided with the proper medical care, he is sent to the Municipal Hospital, where there are special pavilions, exclusively for incurable cases of tuberculosis. If the case is of a mild type, it is sent (provided there is room) to the Arroyo Apollo Sanatorium, which is now being established for the city poor for incipient cases. There are excellent circulars, tracts, orders, etc., relating to tuberculosis, issued by the sanitary department in Spanish and English.

There is a special pavilion on Pirotecnia Hill for the municipal poor, to which only bedridden cases of tuberculosis are admitted. There is also a sanatorium at Arroyo Apollo, ideally situated on high ground, about seven miles outside of the city of Havana, in the center of a farm of about fifty acres. These were established by the sanitary department. To the latter are admitted only incipient cases that have been previously examined by a special board of physicians. Besides these institutions there is the "Dispensario Especial de la Sanidad" (Special Dispensary of Health), with hours for consultation from 1 to 3 daily. Children and women, Mondays, Tuesdays and Fridays; men, Wednesdays, Thursdays and Saturdays. For employes in factories, unable to attend in the daytime, clinics are held Friday evenings from 8 to 10. This dispensary, which treats diseases of the chest exclusively, was also established by the sanitary department and is under its direct control.

There exists an Anti-tuberculosis League of Havana. The chief sanitary officer, Major Gorgas, and Dr. C. L. Furbush, acting chief sanitary officer, have been appointed by the society as honorary vice-presidents. The acting officers and members are Cubans. This society has done a noble work, and too much credit can not be bestowed on it.

A special board for bovine tuberculosis and glanders was inaugurated March 6, 1901, and is under the direction of the city government.

As a postscriptum to this admirable report, my friend, Dr. C. L. Furbush, the acting chief sanitary officer, writes me: "In addition to the work outlined, we have a special medical inspector for tenement houses and factories; one for cafes, restaurants, boarding houses and hotels, fondas and laundries; one for houses of prostitution, prisons, jails and the immigrant station; and another for milk and dairy products, markets, slaughter houses and bakeries; an auxiliary visiting board composed of laymen and physicians, who visit bedridden cases that are unable to be provided for in the hospitals and who object going to the hospitals; to visit at the homes and to lend encouragement, provide medical attendance and improve the comfort and sanitary condition of their surroundings. By the above brief synopsis of the work being done in Havana you can readily see that we are all deeply interested in the question, and none more so than Governor-General Wood and Major Gorgas, the chief sanitary officer, who has covered himself with glory in his marvelous work during the past two years."

Thus you see that even the value of special tuberculosis dispensaries has been recognized immediately by the sanitary government of Cuba, and I regret to say that the importance of such dispensaries in the combat of tuberculosis is not sufficiently estimated in this country. Several of the large centers of population in France and Germany have now most active and well-equipped special tuberculosis dispensaries. Only the other day I read in the *Medical Review of Reviews* (April) that, thanks to the liberality of two French ladies who donated 800,000 francs, Paris will soon have another large municipal dispensary for the exclusive treatment of ambulant tuberculous patients.

THE NEED OF SANATORIA: THE OPPORTUNITY FOR PHILANTHROPY.

The great question of providing hospital and sanatorium accommodation for the thousands of consumptive poor and moderately poor can not be solved without the aid of philanthropists. Societies for the prevention of tuberculosis and sanatorium associations can do much to draw the attention of our public-spirited men to the urgent need of such institutions. But we physicians, family practitioners and specialists must make our influence felt whenever we have occasion, by word of mouth or by pen. What my own views on the duty of our philanthropists are in this respect I have recently made public in a little article, written for laymen and published in the *North American Review* for March. While gladly expressing my profound admiration and gratitude for all that has been done by our Carnegies, our Rockefellers, Vanderbilts, Morgans, Pearsons, our Helen Goulds, Phœbe Hearsts, Jane Stanfords, (Mrs.) Emmons Blaines, in giving us fortunes for universities, colleges and libraries, I think we as physicians may perhaps be permitted to call the attention of our American philanthropists to the great physical needs of the many suffering men and women of this country. There are now, perhaps, plenty of libraries and colleges, and even general hospitals, everywhere; but there is a scarcity of good, model tenement houses, where the average wage earner could enjoy a cheery, pleasant home without paying an exorbitant rent. In these model tenement homes, thoroughly sanitary, well lighted and well ventilated, a temporary sanatorium-treatment-at-home could even be successfully carried out if absolutely necessary, a thing which is an utter impossibility in most of our present tenement houses. There is a scarcity of public baths, which should, for a moderate price, be at the disposal of the people winter and summer, and for some hours in the evening. There is a scarcity of decently kept places of amusement, open all the year, where the laborer and his family may spend a pleasant Sunday afternoon and partake of non-alcoholic drinks. There is a scarcity of children's playgrounds, large and small parks.

There is a scarcity of hospital and sanatorium facilities for thousands of poor consumptives who could be cured if only taken care of in time. Sanatoria for con-

sumptive adults as well as seaside sanatoria for scrofulous and tuberculous children, are a crying and urgent necessity for the majority of our large American cities. Such sanatoria are schools of hygiene and sobriety, besides being institutions for the prevention and cure of tuberculosis. A half dozen sanatoria for the state of New York for example, one or two agricultural colonies for the very incipient consumptives, and a few special dispensaries in the larger centers would render thousands happy and healthy and make them breadwinners and useful citizens. As the conditions are now, the majority of these are doomed to a certain and lingering death; and if they are careless and ignorant of the necessary precautions, they will infect some of their own kin and neighbors. Could I but picture in these pages the dark, dreary rooms of the consumptive of our tenements, as I have seen them so often; could I but describe the sufferings of mind and body of these people, who must suffer and die, not because their disease is incurable, but because there is no place to cure them; could our generous and wealthy fellow-citizens but see for themselves these conditions; instead of more new libraries, universities and colleges, we would soon have better tenements, more playgrounds and parks for children, and an abundance of sanatoria, hospitals and other facilities for the proper treatment of our consumptive poor.

A NATIONAL TUBERCULOSIS COMMISSION.

Could this important Association, composed of wellnigh 30,000 representative American physicians, through a duly appointed committee, persuade the honored President of the United States and his illustrious advisors to create a national tuberculosis commission, such as now exist in several European countries, composed of the best sanitarians and most experienced physicians, who would formulate for us universal antituberculosis laws, what good could not be accomplished! I am firmly convinced that with such an efficient corps of sanitary officers at the head of the various states and city boards of health, and such an array of philanthropists as we have in the United States the prevention as well as the cure of tuberculous disease here could be equally effective, if not more so, than in any European country. What is needed to attain this end is the combined action of a wise government, well-trained physicians, generous philanthropists and an intelligent people.

16 West Ninety-fifth Street.

Vaccination in England.—Since the unfortunate modification of the vaccination laws of England, enacted in 1898, very many children have been exempted from vaccination. The effect of this disastrous piece of legislation is already showing itself in more ways than one. Seventy English life insurance companies have required a renewal of their policies. Thirteen companies absolutely refuse to insure unvaccinated children, fifty-seven companies consider such persons as exposed to an extra risk, and refuse to pay the amount insured if the policyholder dies of smallpox, while only ten companies continue the old form of contract. Many public departments refuse to employ unvaccinated persons. The Duke of Norfolk (postmaster general), as a peer of the realm, voted for the conscience bill, but as a matter of public policy, does not allow unvaccinated persons in the postal service. The same is also true of the heads of the war and navy departments, each of which voted for the conscience bill, but allowed no unvaccinated persons in their branches of public service. The first lord of the treasury has adopted the same measure. In some quarters of the city landlords have turned out tenants who refuse to be vaccinated, and have placed signs on their houses bearing the inscription, "Not for unvaccinated tenants."

THE ARMY HOSPITAL AND SANATORIUM FOR THE TREATMENT OF PULMONARY TUBERCULOSIS, AT FORT BAYARD, NEW MEXICO.*

D. M. APPEL, M.D.
FORT BAYARD, N. M.

In the paper which I had the honor to present to this Section in 1900 I briefly described the establishment of the general hospital for the treatment of pulmonary tuberculosis in the military post of Fort Bayard, located in the dry mountainous region of southern New Mexico at an altitude of 6,040 feet. I then stated that all the buildings of the post, and the water system and sewerage, were very much dilapidated. These are now in good repair, entirely new and modern plumbing has been installed, but as yet no new buildings for the accommodation of patients have been erected. A glass solarium with steel framework (on the paradigm system) which was contracted for in June, 1901, is now nearing completion and will afford excellent protection from the high winds which occasionally prevail, especially during the spring.

The climate of Fort Bayard permits of comfortable outdoor life during the entire year. During the year 1901 there were 38 rainy days with a total precipitation of 8.94 inches. One hundred and ninety-eight days were perfectly clear, 151 partly cloudy and only 16 were wholly cloudy.

The mean maximum and minimum temperatures and the precipitation for the past decade are as follows:

Month.	Mean Max.	Mean Min.	Annual Precipitation.
January	52.81	24.41	1892.... 8.89 in.
February	54.23	29.85	1893.... 15.47 in.
March	60.41	31.12	1894.... 9.12 in.
April	68.02	37.31	1895.... 15.09 in.
May	77.46	45.95	1896.... 18.85 in.
June	86.91	53.24	1897.... 18.00 in.
July	82.75	55.56	1898.... 15.91 in.
August	85.29	57.53	1899.... 10.43 in.
September	82.07	52.27	1900.... 12.66 in.
October	70.84	41.45	1901.... 8.94 in.
November	60.70	32.15	
December	53.75	25.23	
General average....	69.60	40.50	13.34

In reporting our results from the incipience of the hospital to March 31, 1902, I will adhere to my original classification, excepting that, as three cases formerly reported "cured" have had a recurrence, I have substituted the term "clinically cured" for such cases in which all symptoms have disappeared and no reaction follows the tuberculin test. Those in which no bacilli are found in the expectoration after repeated examinations and, though presenting no evidence of active disease, still react to tuberculin, are classed as convalescent.

In my report to the Surgeon General for the period ending Dec. 31, 1900, patients were divided into three classes representing their practical division while under treatment: Class 1, cases afebrile without tubercle bacilli in their sputum; Class 2, cases afebrile with tubercle bacilli in their sputum, and Class 3, cases permanently febrile with tubercle bacilli in the sputum. The first class, those with no bacilli, have separate dormitories, and the third class, with permanent fever, are confined to the infirmary.

For the purpose of graphically representing on a diagrammatic chart the degree of involvement of lung tissue found on physical examination, cases are divided into three stages: 1, infiltration; 2, consolidation, and 3, excavation; corresponding to what are generally known

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Hygiene and Sanitary Science, and approved for publication by the Executive Committee: Drs. Arthur R. Reynolds, George Cook and Heman Spalding.

as incipient, moderately advanced and advanced cases. In this classification is considered only the anatomic character of the involvement, irrespective of its extent or the area involved. On the charts infiltration is represented by parallel lines, consolidation by crossed lines and excavation by an outline of the shape and proportionate size of the cavity or cavities as found on physical examination. Emphysema, hypertrophy, atelectasis, pleurisy and other conditions may also be indicated on the chart. The letters are explained as follows: C., consolidation; D. C., dry consolidation; A. C. C., almost complete consolidation; Cav., cavity; D. Cav., dry cavity; I., infiltration; S. I., slight infiltration; A. I., active infiltration; N. A. I., non-active infiltration; D. I., dry infiltration; P. E., pleural effusion; H. P., heart's position.

Our patients are thoroughly examined every two months and also in the interim, when the symptoms indicate the existence of some intercurrent trouble.

REPORT OF RESULTS TO MARCH 31, 1902.

Admitted from Oct. 3, 1899, to March 31, 1902 (of these 55 were readmitted after discharge)	623
Remaining under treatment March 31, 1902	174
Discharged and died	449

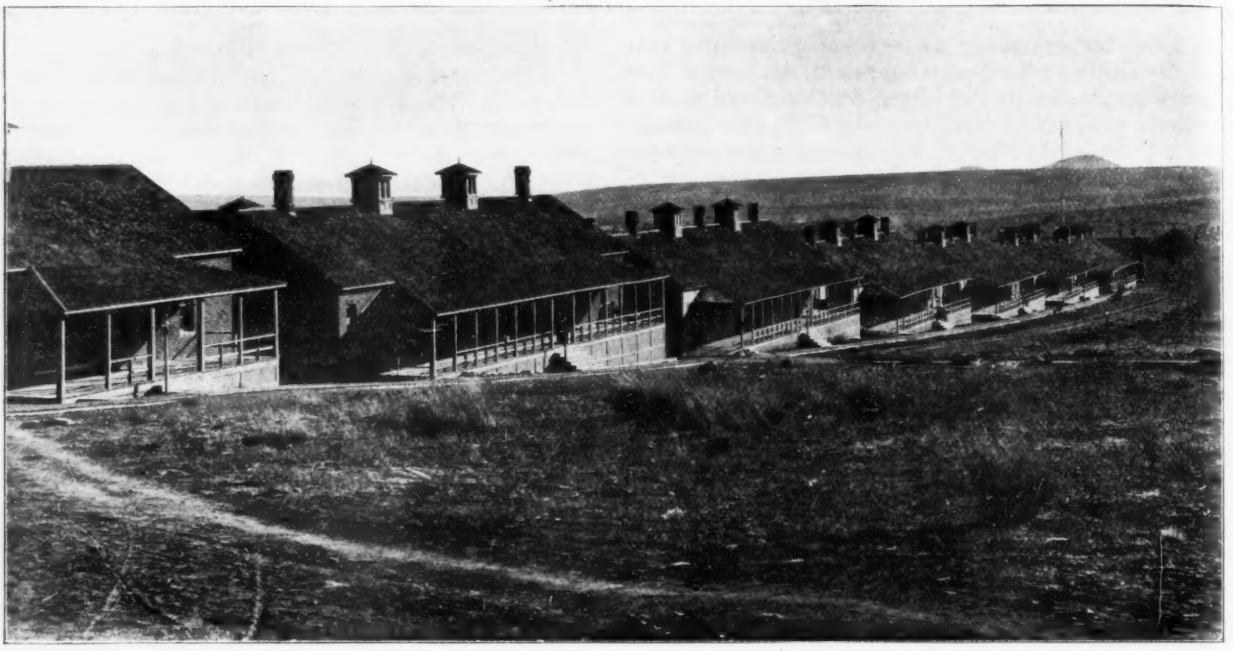


Fig. 1.—Dormitories.

RESULTS IN 449 CASES DISCHARGED OR DIED.

		Percent.
Clinically cured, average residence 8 mos. and 7 days	33	7.4
Convalescent, average residence 5 months and 21 days	52	11.6
Improved, average residence 5 months and 15 days	157	34.9
Unimproved, including 17 discharged in less than 1 mo.	113	25.2
Died, including 25 in less than 1 month	94	20.9

RESULTS IN THE THREE STAGES.

Stage.	Clinically Cured.	Convalescent.	Improved.	Unimproved.	Died.	Total.
First	25	33	75	16	1	150
Second	7	12	50	38	9	116
Third	1	7	32	59	84	183
Total	33	52	157	113	94	449

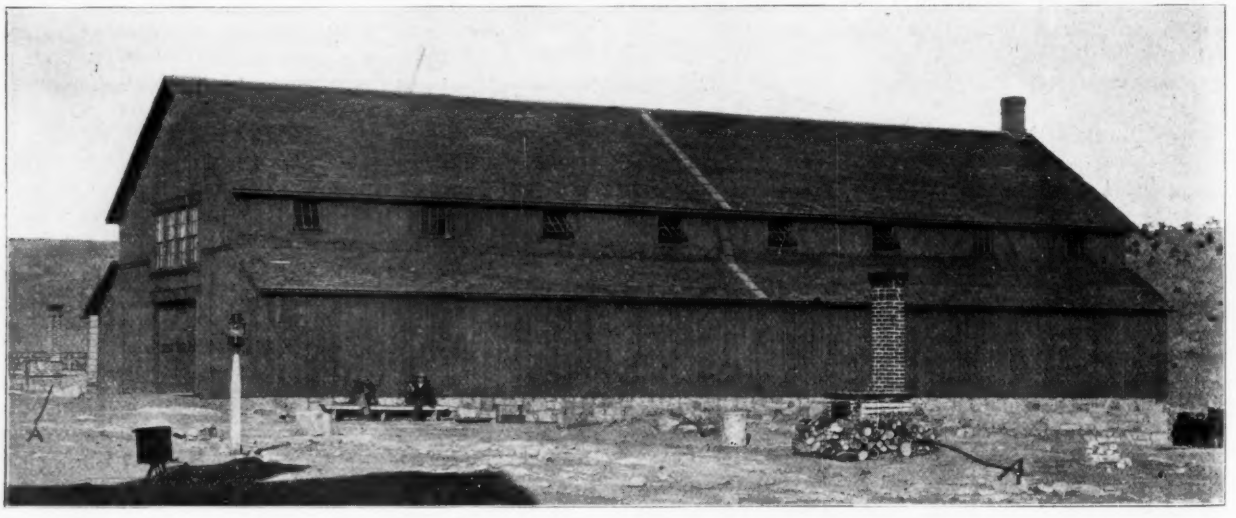


Fig. 2.—Gymnasium with crematory (*A*) on either side.

The one death in the first stage was due to tuberculous appendicitis. Of the 9 deaths in the second stage 5 were from laryngeal or intestinal tuberculosis, 2 from empyema, 1 from rupture of an aortic aneurism and 1 from acute tuberculous pneumonia.

While, ordinarily, sanatoria for the treatment of pulmonary tuberculosis admit only about 25 per cent. of cases examined, as being suitable for admission, one of the purposes for the establishment of this hospital is to remove all recognized cases from the wards of general and post hospitals and from the Soldiers' Home at Washington, D. C., to prevent the propagation of the disease. Patients who are still in the service are sent to the hospital by order of the War Department, regardless of their condition or of their desire to come. They are not selected for treatment in a high altitude, and doubtless a small minority, even of those in the milder stages, would do better at a lesser elevation. A large majority do not realize the gravity of their affection and the importance of remaining until they are clinically cured. When they feel perfectly comfortable, with no pain or other subjective symptoms, it is usually impossible to make them understand the necessity of remaining longer under the essential restrictions of a sanatorium. In fact, very few Americans, especially of the class to which most of our patients belong, will voluntarily submit to a constant supervision and regulation of every detail of their lives, even to a lesser extent than is in vogue in the German sanatoria. Nearly all of our patients are discharged from the army in a few months after admission, but these can remain indefinitely if they so elect, as beneficiaries of the Soldiers' Home. Being no longer in the army they are free to leave at any time, and many of the most favorable cases, in which there is every reason to expect recovery, leave before such recovery is possible. Quite a number have returned, with their general condition much aggravated and their pulmonary lesion much advanced, which is, of course, to be expected in a disease in which even a single indiscretion may often turn the tide from a favorable progress and lead to a fatal result.

Another factor which militates strongly against more favorable results is that a large majority of our patients have been addicted to the excessive use of alcohol, either occasionally or habitually. Despite all our efforts to prevent it, many succeed in surreptitiously securing a supply of liquor and become intoxicated. Though in some cases of tuberculosis moderate doses of alcohol are of benefit in the treatment of certain symptoms, I have found it advisable to absolutely prohibit its use by ambulant patients, and our results are much better in those who strictly comply with this rule. We administer it in the form of brandy, whisky, sherry and port, in moderate doses, only in the infirmary to patients with high fever and to relieve the extremely distressing debility in far-advanced cases.

The excessive use of alcohol is an important factor in producing a susceptibility to the disease by lessening tissue resistance, and our therapeutic efforts are directed to the development of this resistance in order to produce a tendency towards fibrosis. My observation has convinced me that in many cases its use retards and even prevents recovery. That alcohol and tuberculosis are antagonistic was formerly the general belief and is still the opinion of too many.

Nearly 80 per cent. of our patients come from the tropics, and in many of these, owing to the enervating effects of the tropical climate, the disease has made rapid progress before admission. Others in the milder stages in whom pulmonary tuberculosis followed malaria or dysentery, are very much emaciated on admission, and their improvement in nutrition and assimilation is often astonishing. Several have increased ten pounds in weight, and one gained twelve pounds in one week. Patients are weighed every Friday and a report prepared of the gains and losses, if any, in each case.

Fig. 3.—Infirmary.

Following is a portion of the report of April 4, the first Friday following March 31, 1902. The whole report for that week shows that 75 men gained, 48 lost and 32 showed no change:

TABLE SHOWING WEIGHT, GAIN AND LOSS FOR WEEK ENDING APRIL 4, 1902.

Name.	Weight.	Gain.	Loss.
Adams	117	4	..
Alexander	132	..	1
Andrews	130	3	..
Bailey	141	..	1
Bardison	109	1	..
Barry	128	*	..
Bass	136	..	2
Benton	133	1	..
Black	120	1	..
Bowman	127	4	..
Brady	127	..	2
Briggs	143	..	2
Bryant	155	..	2
Burch	127	..	4
Burns	92	..	2
Burton	90	..	4
Cantwell	103	1	..
Carroll, D.	133	3	..
Carter, 1st	111	1	..
Carter, 2d	123	..	2

* First week.

Name.	Weight.	Gain.	Loss.
Carr	137	1	..
Case	126	1	..
Cihlar	129	1	..
Clifford	119	1	..
Collins	127	6	..
Connell, 1st	105	..	3
Connell, 2d	112	0	0
Connor	121	0	0
Cook	134	4	..
Crumby	148	..	2
Cummings	169	2	..
Cummins	132	0	0
Curtis	155	..	2
Custance	112	..	1
Day	102	2	..
Dickerson	114	..	2
Dorcitco	135	0	0
Dougherty	142	1	..
Doughty	130	..	1
Downs	144	0	0
Drislin	146	0	0
Duffy	133	4	..
Dutton	134	0	0

In many cases in which the weight has gradually increased this increase is not uniform, but shows a marked fluctuation until the maximum is reached, when it generally remains practically permanent, indicating that the improved nutrition has been maintained. This fluctuation is particularly noticeable in the aggregates of the weekly reports, as observed in the following table of fourteen successive weeks:

AGGREGATES OF WEEKLY WEIGHT REPORTS.

	Gained.	Lost.	No Change.
September 27, 1901	63	61	37
October 4, 1901	76	48	39
October 11, 1901	87	45	39
October 18, 1901	71	64	35
October 25, 1901	100	48	31
November 1, 1901	60	77	45
November 8, 1901	75	58	40
November 15, 1901	96	35	33
November 22, 1901	54	80	32
November 29, 1901	81	65	28
December 6, 1901	66	62	37
December 13, 1901	47	62	43
December 20, 1901	69	57	27
December 27, 1901	56	62	40

The chart of weights shows the more or less rapid weekly increase to the normal weight in individual cases, which on admission presented various degrees of emaciation. A large majority of our patients on admission are feeble, emaciated and sallow, and in a few months present a complete physical change and have the appearance of perfect health. Taken as a whole our ambulant cases look healthier than any similar body of men ordinarily seen in an assemblage of equal size.

The following is a table of comparative weights on discharge of those improved:

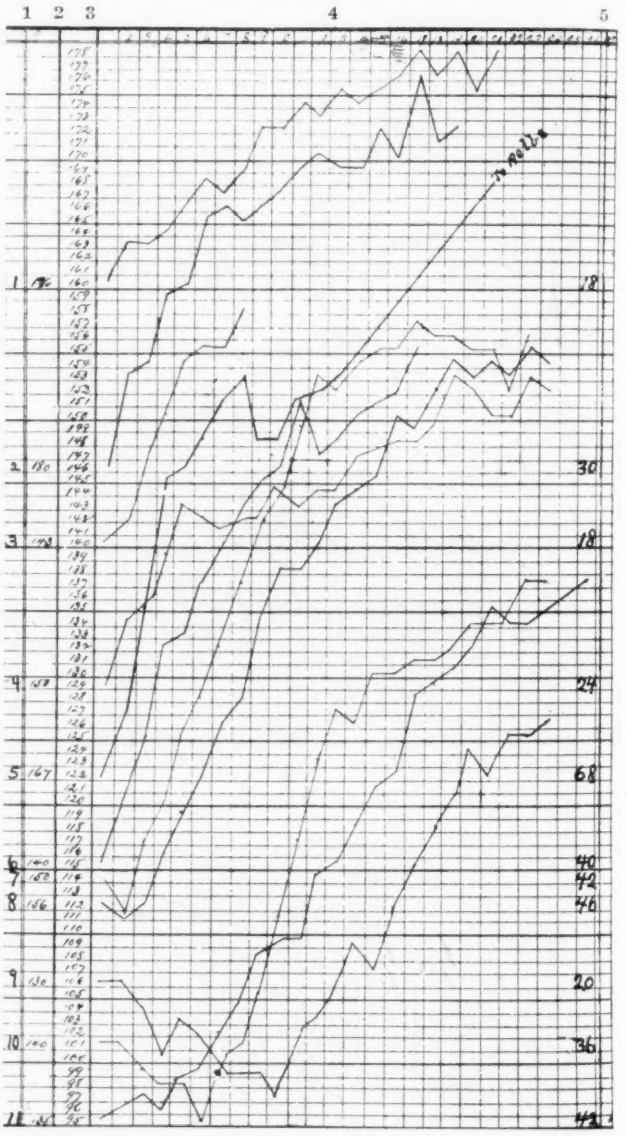
	Discharged.	Gained.	Average. Gain lbs.	Lost.	Average. Loss lbs.	No Ch'nge.
Improved	157	125	10 1/5	23	5 1/5	9
Convalescent	52	46	12 5/8	4	5	2
Clinically cured	33	28	15 2/3	5	5 3/5	.

In those improved the three largest gains were 58, 43, and 42 pounds. In those convalescent the three largest gains were 45, 42 and 40 pounds. In those clinically cured the three largest gains were 76, 38 and 38 pounds.

Abundant good nutritious food is furnished and the necessity of eating as much as can be digested, regardless of appetite, is impressed on the patients. I believe three full meals a day preferable to more frequent feeding, affording time for more complete digestion between meals.

To prevent eating too rapidly and bolting the food (so common among soldiers), it was found necessary to direct that ambulant patients must remain in the dining-room for at least twenty minutes during each meal. Those who can not eat sufficiently at the regular meals are given milk and raw eggs between meals.

A very common error in the treatment of pulmonary tuberculosis, especially in high altitudes, is in the insistance on exercise. Absolute rest, both mental and physical, while the disease is active, should be the rule. Many patients are sent to high altitudes, where the frequency of respiration is at first always increased, with instructions to live on a ranch and rough it. Though in rare cases they may improve in spite of the violent exercise, as a rule their condition will become aggravated. Until the lungs become accustomed to the rarified atmosphere, all exercise should be interdicted. After a varying length of time, the fever and rapid pulse having subsided, walking to an extent short of producing fatigue or a recurrence of temperature is permitted. Undue exertion will undoubtedly produce a recurrence and is frequently followed by a protracted pyrexia, but unless the fever is kept under control there can be no improvement in other symptoms.



Explanation.—1. Patient. 2. Normal weight. 3. Pounds. 4 Weeks. 5. Gain.

Instead of making daily entries on the charts, I find it more convenient to have a consolidated morning report of the temperatures and condition of the bowels for the previous 24 hours, which enables me in a few minutes, before making my morning rounds, to note anything unusual that may require special attention The following is the complete report for March 31. 1902, which is fairly representative and shows how comparatively few of our cases run a high temperature:

CONSOLIDATED DAILY REPORT.—MARCH 31, 1902.

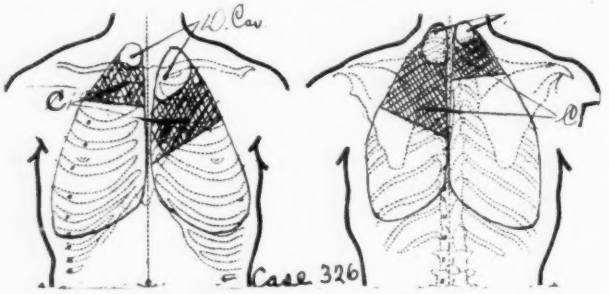
Name.	Temperature. 7 a. m.	1 p. m.	6 p. m.	No. of Def.
Adams	100.0	100.0	98.0	1
Albright	97.0	98.2	98.2	1
Alexander	96.8	98.4	98.6	2
Andrews	95.8	98.0	98.6	2
Bailey	97.4	99.0	99.0	1
Bardison	98.0	101.0	100.8	1
Bass	103.0	99.0	101.4	2
Benton	97.4	98.0	98.4	2
Black	98.4	102.4	100.4	1
Bonham	98.4	98.6	100.2	.
Borah	98.8	98.6	98.8	0
Bowman	96.8	100.8	100.4	2
Brady	98.0	98.4	98.6	1
Britton	97.4	99.0	99.0	1
Briggs	98.0	100.0	99.6	2
Bryant	97.6	98.6	98.4	2
Burch	97.0	97.8	100.4	1
Burns	97.0	98.0	98.0	1
Burton	98.6	100.0	102.4	3
Cantwell	98.0	98.6	98.8	2
Carroll, D.	97.6	99.0	98.6	1
Carr	97.0	99.0	98.4	2
Case	98.0	98.6	99.4	2
Cihlar	97.6	99.0	99.0	2
Clifford	98.0	98.4	98.4	2
Connell, 1st	98.2	98.6	98.4	2
Connell, 2d	96.0	98.0	98.0	1
Connor	98.4	99.0	99.4	1
Cook	96.8	99.4	99.0	1
Crumby	98.2	98.4	98.2	1
Cummins	97.4	98.0	98.6	.
Curtis	97.6	99.0	99.0	2
Custance	97.4	98.0	98.8	2
Day	98.0	98.0	98.0	1
Dickerson	97.4	98.6	99.0	2
Davis	98.0	99.0	98.8	2
Dorcitco	97.2	100.0	100.2	2
Dougherty	97.6	98.2	98.6	2
Doughty	97.6	98.4	99.0	2
Downs	97.6	98.4	98.6	1
Duffy	97.2	99.2	99.0	1
Dutton	97.6	98.6	99.2	2
Ellis	98.0	98.2	98.6	1
Ellmore	97.8	99.2	99.0	2
Fay	97.0	98.8	99.8	2
Fisher	97.0	98.4	97.2	1
Flaig	98.0	98.6	98.4	2
Forsberg	97.2	99.0	99.0	2
Fowler	97.6	98.6	99.0	2
Fry	98.0	99.2	98.6	2
Fuhrman	97.4	98.6	99.0	1
Gallagher	98.0	99.2	99.2	1
Garrison	97.6	98.0	99.0	2
Gaston	97.2	99.4	99.6	2
Gettys	98.0	100.6	99.8	1
Ginnow	98.0	98.6	98.2	2
Girard	97.6	99.0	98.6	2
Graham	97.4	98.0	100.0	2
Green	98.0	99.0	99.2	1
Gross	97.6	98.2	98.4	2
Guedry	95.8	98.0	99.0	2
Guest	98.0	99.0	98.6	1
Hale	96.4	98.0	99.0	2
Hansborough	97.4	99.0	98.4	1
Harding	97.6	99.0	99.2	2
Hardy	97.0	99.0	99.0	3
Harrison	98.0	98.2	98.6	1
Hayes	96.8	98.0	98.2	1
Haynes	97.0	98.0	98.2	2
Hearon	98.2	99.0	98.0	2
Helmbold	98.4	99.4	100.4	0
Henderson	98.4	100.2	100.8	—
Hendry	97.6	98.6	99.0	2
Hipp	97.8	98.4	98.6	2
Hodnett	98.4	99.6	99.4	1
Hoggard	97.6	98.6	98.8	2
Hosbach	97.2	99.0	99.0	2
Howe	98.0	97.8	99.0	1
Jackson	97.4	98.4	98.0	1
Jacobson	97.8	98.4	98.6	2
Jennings	98.0	99.6	99.8	1
Karol	98.2	98.0	99.6	2
Keating	97.6	99.2	99.4	2
Keefe	97.8	99.0	99.0	2
Kelly	96.8	104.0	104.0	1
Kennedy	98.4	98.6	100.0	2
Killalie	98.4	97.8	99.6	1
King	98.0	97.0	98.6	1
Koehl	97.6	98.6	99.0	1
Krueger	97.6	99.2	98.8	2
Larsen	98.4	99.0	100.0	2
Lippert	98.0	98.4	99.0	1
Long	97.2	99.2	99.2	3
Lundgren	97.4	98.6	98.2	3
Lusty	99.0	98.0	102.0	2
Lyons	97.6	99.0	98.6	2
McCallister	98.0	98.6	99.2	1
McDonough	99.4	100.4	100.4	2
McGovern	97.8	99.2	98.6	2
McMahon	98.0	98.6	99.2	2
Marchessault	96.8	98.4	98.8	2
Martin	97.8	98.0	99.0	1
Mason	97.0	99.0	98.0	2
Mattoon	97.6	98.4	98.0	2
Maverick	97.4	98.0	98.4	1
Miller	98.0	99.0	98.0	2
Moore, E.	97.8	100.0	99.8	2
Moore, J. T.	98.0	98.4	99.6	2
Moore, T. W.	97.2	98.4	99.0	2
Nally	97.7	99.0	98.2	1
Naylor	97.4	98.2	99.0	2
Neely	97.2	98.2	98.2	1
Oberauer	98.0	99.0	98.6	2
Outten	96.2	99.0	99.2	1
Owen	97.4	98.0	98.4	2
Perrine	98.0	98.4	98.8	1
Perry	97.6	99.0	99.0	2
Peter	96.4	98.4	98.4	2
Pirie	98.0	99.0	97.6	1
Polly	97.4	98.0	97.4	1
Power	97.8	99.0	98.8	2
Quinn	97.4	99.2	99.0	1
Reeger	97.2	98.6	98.6	1
Richard	97.2	99.0	99.0	2
Ross	97.8	98.6	99.2	1
Roberts	96.8	98.6	99.0	2
Rowland	97.0	97.8	98.4	1
Russell	97.4	98.6	99.0	1
Ryan	97.6	98.2	98.4	2
Rymill	97.4	99.4	98.6	1
Ryon	97.4	98.0	99.0	1
Scannell	97.0	98.0	98.6	1
Schildt	98.0	99.0	99.0	2
Seabridge	99.4	100.6	100.8	1
Seigel	97.8	98.4	99.0	2
Sharon	97.4	99.0	98.6	4
Sheehan	97.2	98.6	99.0	2
Slater	96.8	98.8	99.0	2
Smith, C. W.	97.4	98.2	98.2	1
Smith, F.	98.0	99.0	98.6	3
Smith, L. C.	97.6	99.2	98.8	2
Stastney	97.0	98.6	98.4	1
Sullivan, D.	96.8	98.4	99.2	2
Sullivan, T.	98.4	99.4	98.4	3
Tate	97.0	99.0	98.6	1
Tayman	96.4	98.4	99.0	2
Thompson	97.4	97.8	98.6	1
Tolliver	98.0	98.8	98.6	2
Van Horne	97.6	99.0	98.4	1
Vetters	97.0	98.0	98.8	2
Walk	99.6	98.4	102.0	3
Walker	97.2	98.8	98.4	2
Warden	97.8	99.0	98.8	1
Weinhart	98.0	100.0	99.6	1
Welcher	97.6	98.6	99.0	2
Whalen	98.0	98.6	99.2	1
Wheeler	96.8	98.6	98.6	2
Williams, 1st	97.0	99.0	99.2	1
Williams, 2d	98.8	99.2	98.4	2
Wilson, 1st	97.2	97.8	99.0	2
Wilson, 2d	98.8	97.8	98.4	1
Writesman	97.2	98.8	98.6	2
Young	96.8	99.0	99.4	2
Zillman	99.8	100.6	102.6	1

Every patient in whom the temperature is 100 is in the infirmary, absolutely at rest, and the large majority are far-advanced cases. In only one of the cases in this report is the temperature highest in the morning, and our records show only 22 cases in which this inverse temperature has been observed for several successive days. Of these, 2 were discharged unimproved, 4 remain with no prospect of recovery, and 16 died. (I may add that of the 4 remaining 3 have since died.)

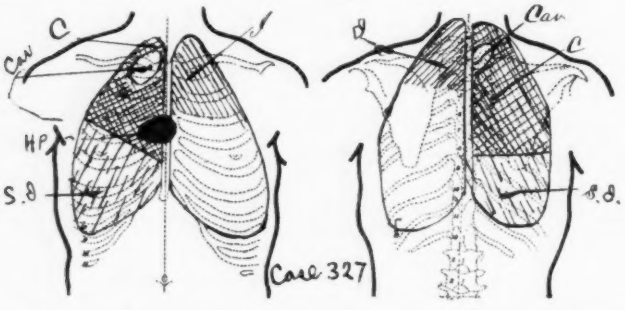
We endeavor to reduce the irksomeness of the restrictions of the daily life of the patients to a minimum. The necessary supervision of the ambulant cases is so arranged as to permit them, as far as possible, to follow their natural inclinations and to enable them to pass their time along the lines of least resistance. They are not permited to remain in their dormitories except at night, and are compelled to live continually outdoors. During inclement weather and after the evening meal they may go into the recreation rooms, in which, as also in their dormitories, the windows are always open. They are encouraged to go to bed early and must retire by 9 p. m. and rise in time for their *a la carte* breakfast from 7:30 to 8:30 a. m. The temperature of each is taken before breakfast, after dinner and after supper.

At 9:30 a. m. they are assembled in the gymnasium (from which all devices for violent exercises have been removed) and each reports his condition to me personally. Having carefully noted the reports for the preceding 24 hours I can more readily comprehend any symptoms requiring attention and give necessary instructions. The patients then form for the morning breathing exercise. I have adopted four exercises, one of which is practiced twice in turn every morning. The patients, all facing me, are directed to keep the mouth closed and

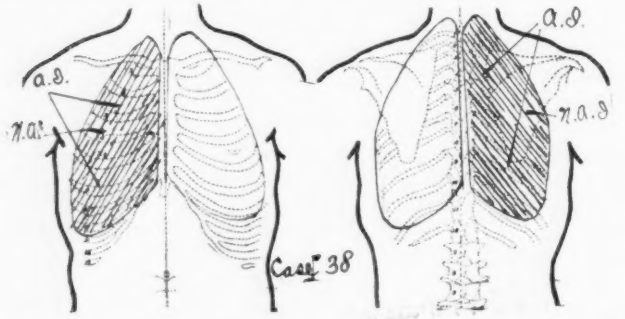
to gently fill the lungs. Then following me in the exercise, at the command "one" they slowly inspire until the lungs are filled, and, resting a few seconds with the lungs inflated, at the command "two" rapidly expire. These exercises gradually increase the chest measurements and the expansion of the lungs and also cause the disappearance of temporarily collapsed areas, and I have hitherto observed no detrimental effects.



After the breathing exercise the patients scatter, some to receive local or special treatment and others to report for their bimonthly examination. The remainder walk or sit on the porches, where comfortable chairs and couches are provided, and engage in such pastimes as their fancies dictate. No violent exercise, such as bicycling, horseback riding, tennis or baseball are permitted, but they are encouraged to play croquet, quoits or golf.



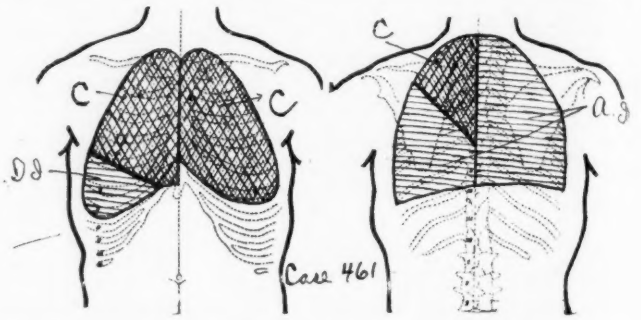
Patients are required to carry spit cups, consisting of common square tin frames containing a folded paper cup. I have devised a pocket cup which is made by patients, for the use of the officers and others engaged in light work, and which when made from suitable paper has been found very satisfactory.



Large cuspidors are scattered on the porches and in the recreation rooms. These are also of folded paper in a tin frame and enclosed in a covered box, placed sufficiently high above the floors so that the covers can be conveniently lifted. The paper cups are all burned in brick crematories, four of which have been constructed at convenient locations.

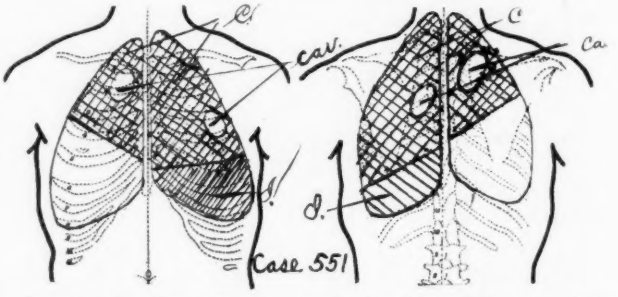
In considering the effects of altitude on the symptoms, it must be remembered that altitude alone, without a hygienic regimen, is of little avail. No locality, however favorably situated, can confer immunity, as cases of pulmonary tuberculosis originate in the most favorable climate.

Life in the open air, which is the keynote of our treatment, is at first uncomfortable, but in our dry air, bright sun and clear sky a tolerance is soon induced. Though

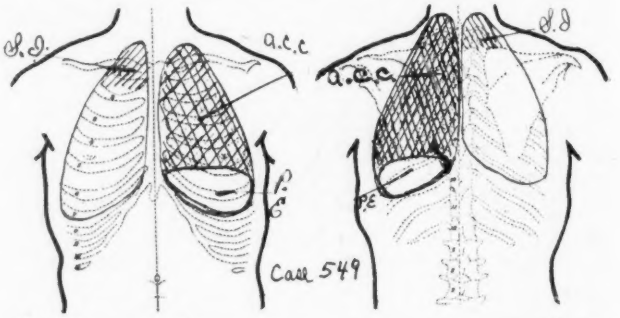


we have frequent winds, the air is so dry that they are not objectionable, unless they are very high, such as prevail for a short period in the spring. At no time during the summer is the temperature uncomfortably high in the shade, and for the past two winters 13 degrees above zero is the minimum record.

Cough, except in advanced and laryngeal cases, soon becomes less distressing. Ordinarily it is easily allayed by heroin, in the extensive use of which I have yet to see tolerance produced or a habit formed. In a few cases it is a decided soporific, but I have never observed any untoward effects. Even in advanced cavity cases severe cough is readily ameliorated and the cavities are soon found dry on physical examination.



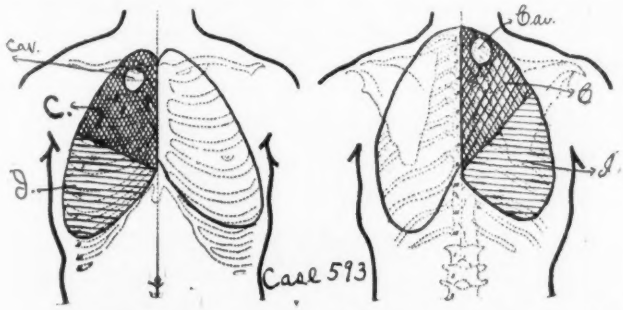
In far-advanced cases with no laryngeal disease or emphysema, the cough rarely continues distressing and the cavities are usually found empty postmortem.



Further experience confirms my statement of two years ago, that hemoptysis occurs much less frequently than at lower altitudes. Nearly 50 per cent. of our cases have a previous history of hemorrhage, and in many it has occurred very recently before admission. In very few has there been a recurrence, and when recurring it is readily controlled, excepting in those with large excavations. In these latter cases it is generally fatal, if not directly, then from the subsequent rapid extension

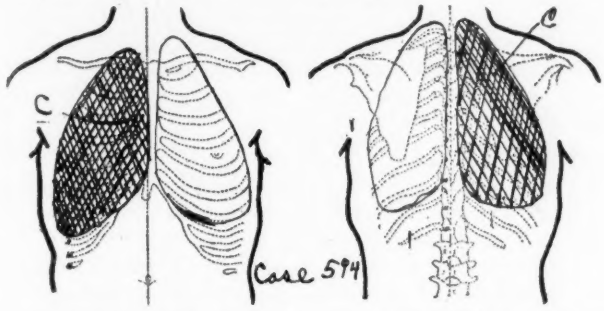
of the disease. This tends to confirm the opinion that the most important element in the causation of hemoptysis in the milder stages is increased arterial tension or vascular congestion, rather than erosion of the vascular walls, and its lessened frequency in higher altitudes is probably due to lowered arterial tension resulting from diminished barometric pressure. Doubtless the prohibition of violent exercise is also a potent factor in its prevention.

Night sweats are rare and readily amenable to treatment. Laryngeal ulceration in the early stages has frequently been cured with simple palliative treatment and even when accompanying advanced and extensive pulmonary involvement has in some cases disappeared. Small pleural effusions are usually absorbed. If sufficiently large to require paracentesis for the relief of



the dyspnea, there is, as a rule, no recurrence if the effusion is sero-fibrinous. In the tubercular involvement of other parts, especially of the cervical lymphatics and of the ribs, the lesions have improved equally as well as those of the lungs.

The longer I observe the effects of treatment in a high altitude, the more I am convinced that a larger variety of cases are amenable to its beneficial influence than is commonly believed. Cases with extensive cavities in both lungs and in which pyrexia continued for several months after admission, have finally improved to such a degree that ultimate recovery is probable.



As shown in the chart of increase of weights, extreme emaciation can not be considered a contraindication, nor does old age preclude a prospect of improvement in high altitudes. Two patients over 60 years of age have returned to the Soldiers' Home clinically cured.

We have carefully weighed the heart in all postmortem examinations to determine whether this organ is congenitally small, as alleged, in those susceptible to pulmonary tuberculosis. We now have records of 73 autopsies in which we have found as follows:

Average weight of heart	292.2	grams.
Smallest heart	150	grams.
Largest heart	460	grams.
Number above average	41	
Number below average	32	

Investigations were recently instituted by Asst.-Surg. H. D. Bloombergh and Contract-Surgeon J. J. Curry of the hospital staff, on the condition of the blood in tuberculosis, with a view of ascertaining whether it would furnish any information of diagnostic or prognostic value.

Since commencing these studies they have made 58 examinations of the blood in 38 patients, of whom 17 were in the first stage, 8 in the second stage and 11 in the third stage, and 2 were cases of bone tuberculosis. Their records show marked irregular variations, not only in the number of red cells and leucocytes, but in the differential count.

In the first and second stage cases, while the average red cell count is practically normal, the leucocytes vary from 5,800 to 26,000, and the degree of leucocytosis, with few exceptions, corresponds with the extent of the pulmonary involvement. The eosinophiles were increased in three cases to 17, 22 and 27 per cent. respectively, careful search failing to reveal any assignable cause for this increase. In the third stage cases the hemoglobin and red cells were decidedly below the normal and the leucocytes greatly increased, averaging 28,374, the increase being almost entirely in the polynuclear neutrophiles. The condition is therefore such as occurs in septic infection.

With the co-operation of Col. A. C. Girard, commanding the U. S. General Hospital, Presidio, San Francisco, we have also commenced a study of the effect on the blood of high altitude. At his request Contract-Surgeon Charles F. Craig, the pathologist of that hospital, is furnishing us a full report of the condition of the blood of patients immediately before transfer to Fort Bayard.

The average normal blood count at Fort Bayard is 6,000,000 to 6,500,000 red cells and 8,000 to 10,000 leucocytes. This is somewhat higher than that reported by Solly and by Campbell and Hoagland at Colorado Springs, and somewhat lower than that reported by Egger at Arosa, both practically at the same altitude.

Notwithstanding their tropical service and the fatigue of the long journey from the Philippines to Fort Bayard of patients transferred from the Presidio hospital, the average red cell count on arrival was 5,705,000, only slightly below the normal and an average increase of 1,604,000 above the count at the Presidio.

The hemoglobin average was 85 per cent., showing that it does not increase in the same ratio as do the red cells.

SYMPOSIUM ON TUBERCULOSIS.

This series of articles will be continued in succeeding issues as follows:

Sanatorium Treatment of Tuberculosis. Analysis of Three Hundred Cases Treated by the United States Marine-Hospital Service Sanatorium. P. M. Carrington, M.D., Fort Stanton, N. M. (Illustrated.)

The Sanatorium Treatment of Consumption. S. G. Bonney, A.M., M.D., Denver.

Some Practical Points on the Treatment of Pulmonary Tuberculosis. J. Edward Stubbert, M.D., New York City.

Recent Investigations Concerning the Relation of Human and Bovine Tuberculosis. D. E. Salmon, D.V.M., Washington, D. C.

The Intertransmissibility of Human and Bovine Tuberculosis: A Review of the Experimental Evidence. R. R. Dinwiddie, M.D., Fayetteville, Ark.

Sanitary Measures for the Prevention of Tuberculosis in New York City, and Their Results. Herman M. Biggs, M.D., New York City.

To Prevent Dust Raising.—An Austrian material for preventing the rising of dust on sweeping proves to be cottonseed oil. In a test at Vienna, it was found that floors oiled twice a year could be swept weekly without any whirling of the dust, and the material was recommended for all rooms where many people were received, as well as for laboratories, libraries, and other places to be kept scrupulously dust-free.—*Canadian Druggist.*

ANATOMIC TREATMENT OF FRACTURES OF THE FEMORAL NECK.*

C. E. RUTH, M.D.
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KEOKUK, IOWA.

Six per cent. of all fractures being through the neck of the femur, giving as a result nonunion in the majority of cases with useless limbs, renders the subject of enough importance to justify its consideration in the light of all the latest attainable information.

There is nothing to be gained by attempts to differentiate between intra-extra-capsular and mixed varieties, for when not impacted their management to be successful can differ in no essential particular. Diagnosis is rarely attended with difficulty, the assemblage of symptoms being characteristic. This is, however, not true in the penetration or impaction cases when immediate

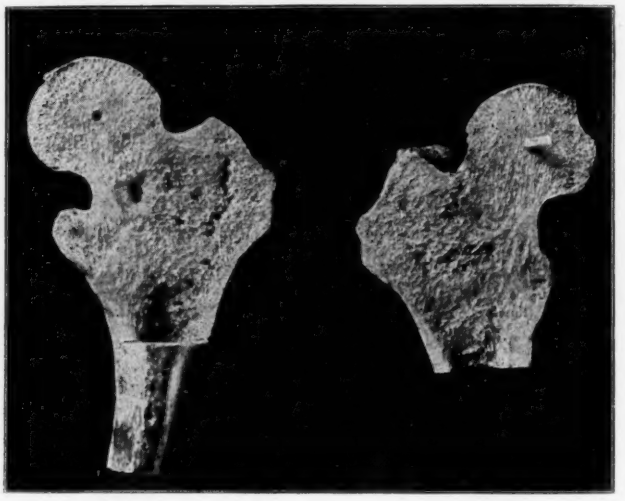
Fig. 1.—Fracture of neck of femur in Case 2. At 72 years of age, used 20 years afterwards. No perceptible shortening.

diagnosis may be impossible or methods to obtain it unjustifiable. In such cases the diagnosis will usually be cleared in a few days by loosening of the fragments or the impaction remains permanent and insures a good result barring complications in themselves serious. Our leading surgical authorities inform us that permanent impairment is to be expected, death is not uncommon and that nonunion usually results from fracture through the narrow part owing to impossibility of accurate coaptation and immobilization of the fragments. That this latter statement is erroneous I hope to demonstrate beyond a controversy.

The treatment which is here advocated is applicable to any solutions of continuity involving any part of the femoral neck and its connections to the shaft, to all ages and physical conditions, gives as great comfort as any known plan, is easy of application, requires little time to adjust, requires no elaborate apparatus, gives no danger of pressure injury, places the fragments in apposition when properly adjusted and overcomes all displacing tendencies of weight and muscular action, which are the principal factors in preventing union and causing deformity or impairment of function. That bony union has occurred in all varieties of fracture of the femoral neck is no longer denied by well-informed medical men. That useful repair in the aged treated by the usual methods occurs only in a small per cent. is recognized by all physicians and attested by cripples from this cause in almost every community.

Twelve years ago I became impressed with the reasonableness of the method and results obtained by Prof. T. J. Maxwell in fractures of the femoral neck and have used the method in all my cases since and taught it to my medical classes. Dr. Maxwell has practiced and advocated the method for thirty-two years.

I published a report of seventeen cases in THE JOURNAL Aug. 26, 1899. Again at the St. Paul meeting last year I presented a supplementary report of eight cases, making a total of twenty-five. This paper was published



Figs. 2 and 3.—Vertical section of femoral neck fractured 20 years before. Case 2 of former report.

in THE JOURNAL Dec. 21, 1901. At the St. Paul meeting I also presented a specimen of a bone broken in a man aged 72 years. This was Case 2, R. P., reported by me Aug. 26, 1899. (Figs. 1, 2 and 3.)

It represents the result in the second case treated by Dr. Maxwell and gave its possessor satisfactory service for twenty years thereafter, though slight eversion gave constant testimony to its former solution of continuity. It also gives eloquent testimony to the possibilities in intracapsular fracture. The trouble is the result is too good to be believed by those who are unacquainted with Dr. Maxwell's skill in adjusting and retaining such fractures and do not understand the aid of the capsular ligament when properly utilized as a retaining force.

Perfect adjustment of the fragments must occur when traction is made in line with the normal axis of the femoral neck, provided the capsular ligament is not almost or quite destroyed, together with the surrounding muscles. This fact I have demonstrated by experiment on the cadaver.

Adjustment and retention of the fragments are easy and certain if the anterior strongest part of the capsule remains intact. Sufficient traction in the normal line of

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. H. O. Walker, A. J. Ochsner and DeForest Willard.

the femoral neck compels the capsular ligament to act as a close-fitting sleeve, to adjust and align the fragments; and if said traction be maintained the relation will also be undisturbed.

The tendency is for the lower fragment to fall behind and then be drawn upward and inward while it is usually rotated outward, causing an upward inward displacement of the lower fragment. It necessarily follows that the anterior part of the capsule falls across the upper fragment, which is frequently tilted forward, and if proper traction is made it will carry the upper fragment, now free of any muscular attachment, passively into line. The anterior part of the capsule, including the Y ligament, can always be depended upon, for it yields only to a force almost sufficient to produce evulsion. The action of the psoas and iliacus is normally that of a flexor with neutral or internal rotation. When a solution of continuity occurs in the femoral neck they immediately become pronounced external rotators. (Figs. 4 and 5).

Fig. 4.—Shows normal position, relation and line of action of the psoas and iliacus.

Fig. 5.—Muscle pushing itself or other soft parts between the fragments and producing external rotation.

They not only become external rotators, but often force the soft parts between the fragments. By so doing they make union impossible unless the impediment be removed, first by flexion, which raises the line of muscular action above the fragments. Then make and maintain traction on a line with the normal femoral neck, thus preventing tissue from being caught between the fragments.

In the fifteen additional cases which I have collected since the last annual meeting, I have given the names, as in my previous reports, of the physicians in charge and their addresses. Two of these cases have furnished us specimens, one of which should put forever at rest all questions as to the possibility of obtaining a result equal to that shown in Case 2. One proves the possibility of bony union with slight impairment of function in a case 81 years old treated by a novice.

The poor results usually obtained in treating fractures of the femoral neck have been explained in many ways, but most recent authorities have agreed that the important reason was imperfect adjustment and failure to maintain immobilization. It has been assumed that these difficulties could not be overcome. No greater error, I think, has been fostered by the profession for the manufacture of cripples. It may be urged that the direction of the breaking force may have thrown the distal end of the upper fragment backward, and entirely separated the posterior part of the capsular ligament, thereby leaving no tissue to direct the fragments into line. If, however, the directions, positions and relations of the quadratus femoris, obturator internus, obturator externus, gemelli, pyriformis, psoas and iliacus is remembered, we will understand at once that the close relations of these muscles to the parts concerned will enable them to reinforce the capsule, however badly it may be injured, so that if they are all rendered taut by traction in the normal line of the femoral neck they will readily bring the fragments into position.

In non-penetrating fractures of the femoral neck the position of the fragments must depend largely on the position of the patient, the kind of retaining force and his own muscularity. Muscular action is of as much importance in determining results of fracture here as anywhere else in the body. This is due to the great number and power of the muscles passing over the fracture line and exerting their force at varying angles.

Fig. 6.—Illustrating lines of action of longitudinal and lateral extension and their resultant made necessary to overcome oblique action of the muscles. 1, Shaft line of longitudinal traction: 2, resultant; 3, line of lateral traction; 4, femoral neck.

the resultant of which is in line with the femoral neck. The sartorius, rectus, gracilis, semi-membranous, semitendonosus, long head of the biceps, tensor vaginæ femoris, vertical portion of the adductor magnus and portions of the gluteus maximus medius and minimus exert a powerful upward displacing force. This is farther reinforced by the oblique upward and inward pull of the adductor magnus, longus, brevis and pectineus. The inward pull of some of these latter is very pronounced. Those which pull almost directly inward and rotate outward are the pyriformis, obturator externus, gemellus superior and inferior, obturator internus, quadratus femoris and lower half of the gluteus maximus.

The method of treatment is as follows: Patient on the back, first flex the thigh on the abdomen to relax the psoas and iliacus and bring their line of action above the neck of the femur and so prevent them from in any way forcing soft tissue between the fragments. Then make extension while an assistant makes traction outward and raises the trochanter major to the same level as its fellow. Fifteen to twenty-five pounds weight is now to be used over a pulley to make downward extension on the leg. This is accomplished by

the ordinary Buck's extension with wide adhesive straps extending well above the knee. Binders' board or other material should now be molded to the internal, anterior and posterior aspects of the upper parts of the injured thigh, and around this a broad band of muslin or other material is extended by a cord through a pulley at the side of the bed, to which is attached a weight of from eight to sixteen pounds. This lateral pulley must be placed at such a height and have sufficient weight to overcome the tendency to eversion and to carry the trochanter to a level and of equal prominence with the opposite side. When this is done the direction of the pull will usually be outward, ten degrees upward toward the axilla and forward at an angle of about 45 degrees. The upward direction is to keep the padded binders' board on the inner side of the thigh well up to the perineum and to make the resultant

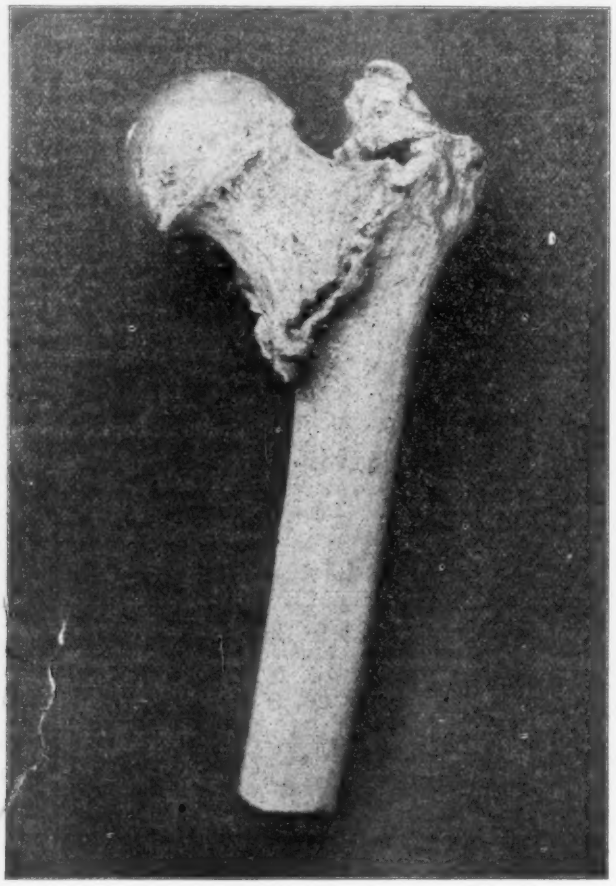


Fig. 7.—Anterior view. Case 29.

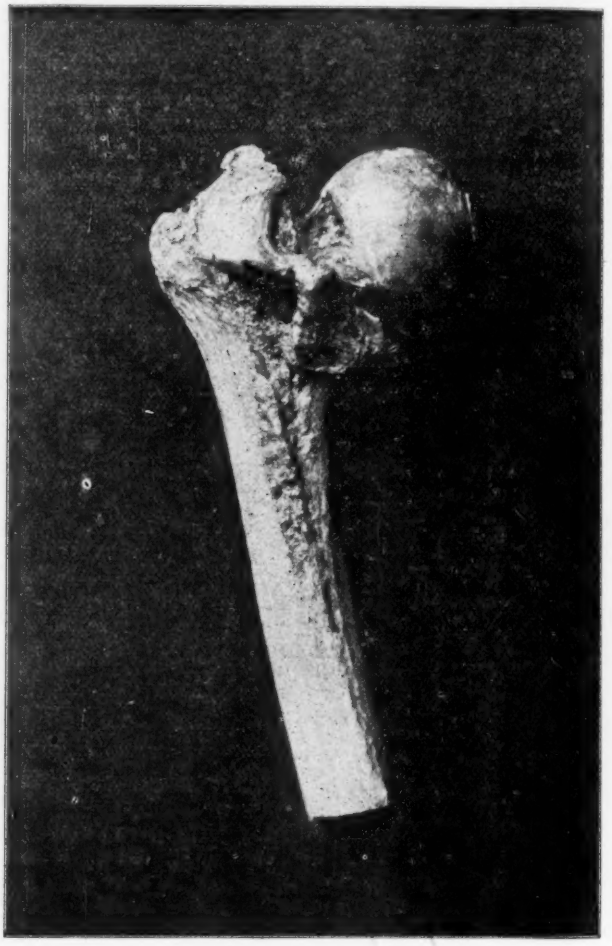


Fig. 8.—Posterior view. Case 29.

of the lateral and longitudinal forces fall in line with the femoral neck.

The binders' board is used on the inner side of the thigh to enable a wider bearing surface to be maintained, that no discomfort shall be caused by the connecting band to the pulley folding into a cord and tending to cut into the thigh. The usual precautions are necessary to protect the malleoli from pressure and to keep the patient clean. Bed and pressure sores can be avoided with reasonable care. The knee should be flexed every four or five days to prevent ankylosis, as neglect of this precaution has caused the patients more subsequent annoyance than anything else.

The counter extension for longitudinal and lateral traction is made by the patient's weight. The foot of the bed is raised enough to overcome the tendency of the patient to slide toward the foot of the bed, and amounts to from ten to fifteen inches, according to the amount of weight required to overcome the muscular action. The side of the bed corresponding to the injured limb is also raised enough to overcome the tendency of the patient to be drawn toward the lateral pulley. The tilting required will be from two to five inches and will depend somewhat on the width of the bed. A single narrow iron bed is to be preferred. The anatomic method adds no complications to an already grave condition by operation or otherwise.

I have yet to know of a single patient with fracture of the femoral neck treated in this way who has complained of pain in the hip after suitable adjustment of the weights and pulleys, nor have they complained of pain or other discomfort from the movement necessary to put the bed-pan under them, nor when raised to the sitting posture for cleansing, changing clothes, etc. Daily raising of these patients to the sitting posture, as above indicated, will not in the least disturb the fragments if the longitudinal and lateral traction is steadily maintained. These patients within one or two days can usually raise the hips themselves with the sound leg so that the bed-pan can be readily used. Four to six weeks of confinement, which is all that is usually needed to procure union, is not an element of danger in itself; besides, no plan of treatment or nontreatment so far devised can give greater if equal comfort and freedom of movement.

CASE 26.—Mrs. Wagner, aged 69 years. Physician, Dr. Stanmeyer, Bonaparte, Iowa. Fell Jan. 19, 1894, on icy side-

walk. Dr. T. J. Maxwell, Keokuk, saw the case in consultation. The usual signs of fracture of the left femoral neck were present. Shortening two inches—says Dr. Stanmeyer—foot everted completely, hip flattened, leg helpless and crepitus. Longitudinal and lateral extension was applied for seven weeks. No perceptible shortening. Weight of patient about 200 pounds. Soon regained complete and perfect use of the leg. Leg measured seven years later by Drs. Maxwell and Stanmeyer and no shortening was discoverable. Patient said: "I have had perfect use of my limb ever since recovery from the break, and have been able to walk without limp, halt or pain."

CASE 27.—Mrs. E. M. Dillemuth, aged 68 years. Physician, Dr. G. L. Watson, Pomeroy, Iowa. April 26, 1897, patient slipped and fell on stone steps, striking right hip. Examination gave abnormal mobility, change in shape of hip, shortening one and one-half inches, foot everted, slight crepitus and severe pain. Diagnosed as intracapsular fracture and treated by Dr. T. J. Maxwell's method. Discharged June 20, 1897. Shortening one-fourth inch. Weight 168 pounds. Use of the injured limb as free, easy and satisfactory as the other. Does all her own work and walks long distances without discomfort. Had to be raised frequently while under treatment on account of suffocation from goiter. Dr. Watson says: "The fractured limb pained her but little after in position. I shall continue to use and advocate the use of this method for like cases as certain to bring better results than any other at present advocated."

Fig. 9.—Case 34.

CASE 28. Mrs. I. S. Nash, aged 72 years. Physician, Dr. A. John Droz, West Chester, Iowa. Feb. 22, 1899, sustained fracture of the left femoral neck, which was diagnosed by shortening, eversion and preternatural mobility with pain. Shortening one and one-half inches. Treated by extension and lateral extension. Discharged April 25, 1899, with no shortening. Complained of no pain whatever after treatment was begun. Says: "I am the happiest woman on earth, because I never expected to walk, for I know of three cases of the same injury who were never able to walk."

CASE 29. Mr. George Royce, aged 81 years. Physician, Dr. Fordyce, Ainsworth, Iowa. Sustained fracture of the neck of the femur Jan. 28, 1901, by a fall upon the frozen ground. Shortening was two inches, distinct bulging on the anterior aspect of the groin and thigh, foot was everted and the slightest motion caused excrutiating pain in the hip. Crepitus was elicited under chloroform. Buck's extension and counter-extension was applied at once. Adhesive straps extended above the knee. Between 15 and 20 pounds were used as extension weight. Pain was severe during the night in the hip; 10 pounds were then put on in lateral extension, which gave immediate and permanent relief.

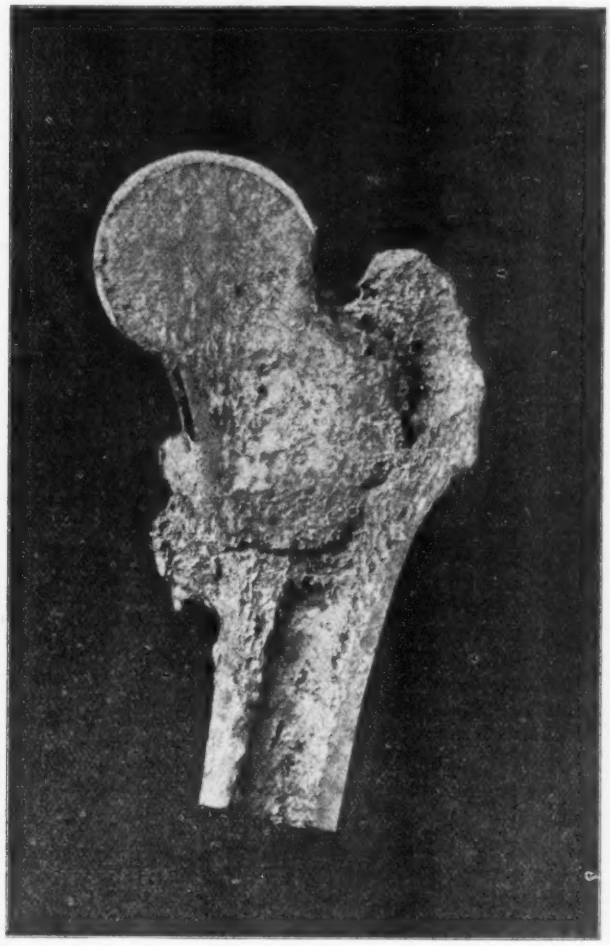


Fig. 10.—Case 34.

REMARKS.—Treatment was continued for seven weeks. He regained perfect use of the limb and walked without crutches. Shortening of the limb was practically nil; never could make out one-fourth inch. Foot was slightly everted. Middle of following August had sunstroke, from which he never recovered, and he died Sept. 6, 1901. Specimen which I herewith present was secured postmortem by Dr. Fordyce. Fig. 7 anterior and Fig. 8 posterior view.

CASE 30.—Mr. C. Louder, aged 86 years. Physician, Dr. T. F. Jones, Fairfield, Iowa. Fractured the right femoral neck May 20, 1901. Two inches of shortening, eversion of the foot and crepitus were the evidences obtained of fracture. Treatment was begun at once and continued to May 25, 1901. A good, useful limb was obtained with one inch of shortening by extension in line with the femoral neck. Very little pain or discomfort was complained of.

CASE 31.—Mrs. S., aged 47. Physician, Dr. J. W. Holliday, Burlington, Iowa. Sustained fracture of the right femoral

neck by fall on a step. Diagnosis was made under chloroform, crepitus was obtained, there existed eversion of the foot and one and three-fourths inches of shortening. Injury sustained Feb. 8, 1901. Discharged April 25, 1901. Shortening three-fourths of an inch. Discomfort much less than usual and principally from the knee.

CASE 32.—Miss Pauline Miller, aged 56 years. Physician, Dr. A. C. Bernays, St. Louis, Mo. Fracture of the left femoral neck occurred as the result of a fall at night. Admitted into the service of Dr. Bernays April 17, 1901. Discharged July 23, 1901. Treatment was begun the next morning after the injury. Diagnosis of fracture was made by shortening of two inches with crepitus and eversion. Treatment by longitudinal and lateral extension. Treatment was discontinued after nine weeks. Shortening was one-half inch. Walks without cane in the house, but uses cane on the street. The treatment was comfortable to the patient.

CASE 33.—Mrs. R. Birlingame, aged 68. Physicians, Dr. J. F. Swarens, Beacon, Iowa, and Dr. C. C. Thompson, Keokuk, Iowa. May 1, 1901, patient had an attack of apoplexia, from which she partly recovered. On May 29, 1901, while walking across the floor she tripped and fell, producing fracture of the right femoral neck. With longitudinal and lateral extension the patient became rapidly comfortable, and remained so until July 16, 1901, when she sustained another attack of cerebral hemorrhage, from which she died one week later. She had good union with no shortening. Postmortem was not permitted.

CASE 34.—Mr. Rankin, aged 74. In feeble health from cerebral softening, sustained fracture of the neck of the right femur May 10, 1901. Examined by Prof. Geo. F. Jenkins and Dr. C. A. Jenkins, both of Keokuk, and by them found to have two inches of shortening and complete eversion of right leg and foot. The case was diagnosed as one of undoubted fracture of the femoral neck, and affidavits to that effect were sworn to by them before a notary public. Dr. T. J. Maxwell was called in the case about May 18 and assumed its subsequent management with Dr. C. A. Jenkins. The case was treated by extension, counter and lateral extension for four weeks, at the end of which time he was found dead in bed. He had complained of no pain whatever after the dressings were applied. Careful measuring of the limb failed to show any shortening whatever. Postmortem was made the next morning after death by Dr. T. J. Maxwell, at which the writer was present and the specimen secured, which I herewith exhibit (Figs. 9 and 10), showing line of fracture, only four weeks of treatment, union well advanced for the time, position is perfect, two inches of shortening had existed for one week before treatment was begun. The line of fracture is perfectly distinct in both sides and union has occurred, though too young to be absolutely solid as the unbroken bone. This case shows beyond a peradventure that repair may be had by this line of treatment in some cases which will show on the outside of the bone no signs of a solution of continuity, no shortening and no impairment of function even in the old.

CASE 35.—Mrs. Martha A. Gordan, aged 88. Physician, Dr. R. C. Ditto, Augusta, Ill. Sustained fracture of the right femoral neck May 17, 1901. Crepitation was obtained and was accompanied by complete eversion with shortening of one and one-half to two inches. Case was complicated with stroke of apoplexy with paralysis, which interfered with diagnosis. Treatment was begun for the fracture by extension, counter and lateral extension, May 23, 1901, and was continued for four weeks. Pain was relieved at once and patient remained comfortable throughout treatment. Shortening of three-fourths inch was the result. Owing to the paralysis and great enfeeblement of 88 years she has never been able to walk but a few steps. Patient is still living at nearly 89.

CASE 36.—Mrs. Peterson, aged 80 years. Physician, Dr. T. J. Maxwell, Keokuk, Iowa. Sept. 14, 1901, fell and fractured right femoral neck. Shortening was one and one-half inches, eversion was complete, flattening of the hip was marked and accompanied by complete helplessness. Was treated for six weeks with extension and lateral extension, at the end of which time union was found to have taken place with free and unobstructed movement of the articulation and no pain whatever. Patient during treatment was frequently raised to the sitting posture to be cleansed and have clothing changed. Repeated measurements made by Dr. Maxwell and myself failed to reveal any shortening whatever. Raising to bathe her back and change clothing caused no pain and in no way seemed to interfere with repair.

CASE 37.—Miss Eva Marvel, aged 30. Physician, Dr. R. L. Casburn, Carthage, Ill., and Dr. C. E. Ruth, Keokuk, Iowa, consultant. Patient tripped, fell on the floor and sustained a fracture of the right femoral neck, which was at first supposed to be a dislocation, but under chloroform was, after a careful examination, found to be a fracture close to or at the head of the bone and apparently wholly within the capsule. Extension, counter and lateral extension was applied, which gave immediate relief to the pain which had previously been severe. Patient was first seen by me Oct. 24, 1901. The injury occurred six days previously.

Result: Examined and measured carefully by Dr. C. E. Ruth May 20, 1902. Can walk without assistance, but still uses one crutch most of the time. Shortening one inch. Motion perfect.

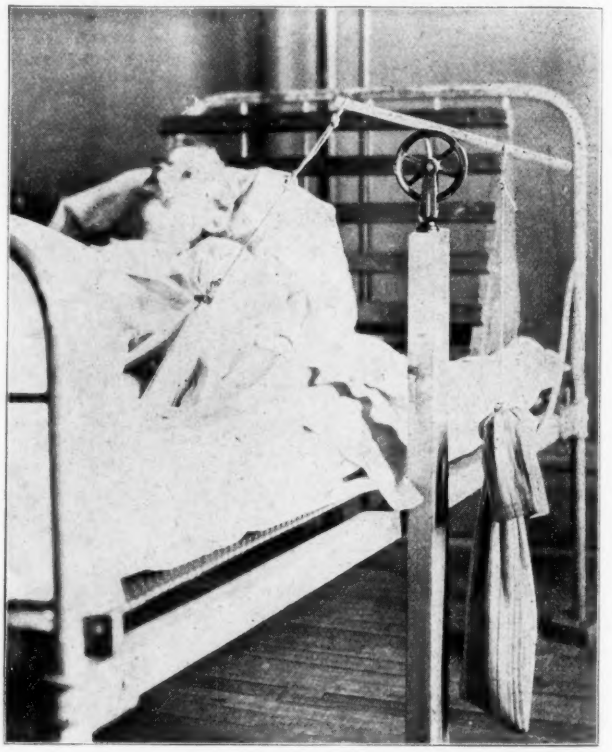


Fig. 11.—Case 39.

CASE 38.—Mr. Wesley Jarnigin, aged 62 years. Physicians, Drs. J. L. Robinson and W. H. Shaw, Monroe, Iowa. Fell on frozen ground Nov. 16, 1901, and fractured the left femoral neck. One and one-half inches of shortening with eversion and pain. Diagnosis made under chloroform. Treatment by extension, counter and lateral extension was begun at once. Patient was discharged Jan. 3, 1902, without shortening and with good use of the leg. Patient was immediately relieved of pain when the apparatus was adjusted and remained comfortable. Patient has plowed some with a walking plow this spring, which would be recognized as a thorough test as to the usefulness and capacity of the leg. He walks without a cane. Has a little soreness in the knee, supposed to be due to injury to the knee overlooked at the time or to prolonged extension of the knee without flexion.

CASE 39.—Michael O'Gorman, aged 52 years. Physicians, Dr. Frank B. Lucas and Dr. C. U. Collins, Peoria, Ill. Injury occurred Jan. 2, 1902. Treatment was begun January 3 and carried out in the county hospital at Peoria. Shortening two inches, eversion, preternatural mobility and crepitus. Fracture involved the left femur and was made under com

plete anesthesia. Treatment by extension, counter and lateral extension was kept up until Feb. 12, 1902. Result: three-fourths inch shortening. Almost able to walk without crutch or other aid. Will have good use of the limb. Dr. Lucas says: "Patient suffered little discomfort after the Maxwell anatomic method was applied, and, I might say, less pain than any of my other six cases treated otherwise. No eversion of the foot exists at the present writing, April 30, 1902." I wish to state that Dr. Lucas made use of a very ingenious device to obviate the tendency to eversion by the adjustment of a bar across the top of the lateral pulley to the inner end of which the band around the upper end of the thigh was attached and to the other end of which the weight was attached. By this plan, should the patient move nearer to or farther away from the lateral pulley, the direction of the lateral pull was maintained at nearly an unvarying direction forward, upward and outward. (Fig. 11.)

CASE 40.—Adam H., aged 71 years. Physician, Dr. C. E. Ruth, Keokuk, Iowa. Fell April 26, 1902, on stone steps and complained of inability to move the leg and was in severe pain. On superficial examination I was undecided as to whether he had a severe bruise from fall or had impacted intracapsular fracture of the femoral neck, but inclined to the latter opinion, as marked flattening of the hip was easily demonstrated together with great pain on movement. Treatment was expectant for five days, when the fragments began to disengage, shortening and eversion took place and patient was then removed to St. Joseph's Hospital and the anatomic method of

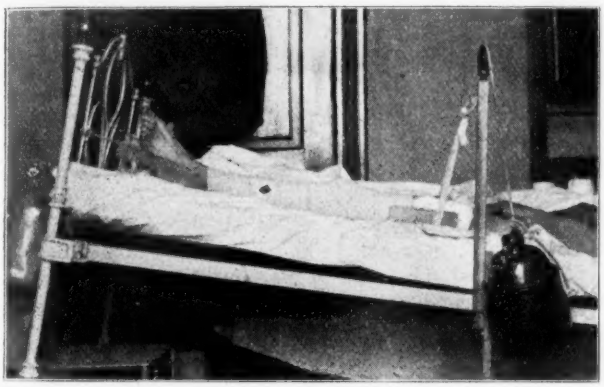


Fig. 12.—Illustrates method of applying longitudinal extension, counter and lateral extension.

treatment begun. Pain was at once relieved and patient remained comfortable save for a pleurisy which caused pain in left side for thirty-six hours. He was raised daily for cleansing, changing of clothes, etc, without pain. Large callus had formed by the tenth day. June 7, six weeks after injury, treatment discontinued, as union had occurred with good range of movement. Callus greatly reduced in size. Patient is able to sit up and is perfectly comfortable. Only one-fourth inch of shortening discoverable by repeated measurements by Dr. T. J. Maxwell and myself. Slight eversion exists. (Fig. 12.)

CONCLUSIONS.

Number of cases treated by this method so far reported, 40; number giving no demonstrable shortening, 16; number with one-half inch or less of shortening, 11; number with one inch or less of shortening, 10; number with flail limbs, no union, treatment abandoned in a few days, 3; total, 40.

Cases over 80 years of age, 9; union with ability to walk well, 5; non-union, 2; paralysis from debility with great age preventing walking, 2; total, 9.

Cases 70 to 80 years of age, 8; non-union, 0; good serviceable union, 6; died of brain softening, 1; union less than 2 months old, one-quarter inch of shortening, 1; total, 8.

Cases 60 to 70 years of age, 8; non-union, 0; good serviceable limbs, 8.

No failures to secure union under 80 years of age.

No failures to secure serviceable limbs in any case under 70 years of age.

Good serviceable union was obtained in 77.5 per cent.

Excluding 4 cases in which treatment was not continued 4 weeks gives serviceable limbs in 86 per cent.

Excluding cases in which treatment was abandoned within 4 weeks, death from intercurrent malady or in which the injury is too recent to report, gives good serviceable limbs in 100 per cent.

This Symposium on Fractures is to be continued by the papers of Drs. Thomson and Roberts, and the discussion on the three.

REPORT OF FOUR CASES OF SYPHILIS MISTAKEN FOR SMALLPOX,

WITH REMARKS ON THE DIFFERENTIAL DIAGNOSIS OF THESE TWO DISEASES.*

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PHILADELPHIA.

Of all diseases that protean and imitative malady syphilis is the one which is capable of most closely simulating smallpox. During almost every extensive epidemic of smallpox cases of the former disease are erroneously regarded as variola and are not infrequently sent into hospitals set aside for the treatment of this disease. This resemblance between smallpox and syphilis was noted by physicians several centuries ago. When syphilis was first recognized at the end of the fifteenth century it became necessary to distinguish it from smallpox which it occasionally resembled to a most striking degree. Variola was designated therefore small-pocks or smallpox, and syphilis, great-pocks or pox. (The word pock signified pouch or pocket, and was doubtless descriptive of the pocket left in the skin after the subsidence of the disease.) The same nomenclature was employed in the French language, *la petite verole* to indicate variola, and *la grande verole* or simply *la verole* to indicate syphilis. The error of confounding these two diseases is not confined solely to physicians of inexperience, but is from time to time made by those who have considerable acquaintanceship with smallpox.

CASES ILLUSTRATING THE RESEMBLANCE.

Since January, 1901, there have been treated at the Municipal Hospital about 1,900 cases of variola. Four patients suffering from acute syphilis were received during this period.

CASE 1.—C. H., a young woman of 21 years, was sent from another large hospital after having been seen by several physicians of repute. Nothing is known of the symptoms preceding the outbreak of the cutaneous efflorescence save that the patient was not sick enough to seek her bed.

The eruption appeared on April 14, 1901, as small pinhead-sized reddish papules, discretely scattered over the face, trunk and extremities. The lesions were most profuse on the back. In the course of two or three days small vesicles containing a little serum developed at the apices of the papules. On admission, April 25, some of the lesions presented small pustules with milky contents, others showed small crusts at their summits, but the vast majority were scaly.

The eruption remained more or less stationary for a week or ten days, when the patient was put on antisyphilitic treatment. During the period of her hospital stay she did not feel sufficiently ill to desire to remain in bed. About two weeks after admission she developed an iritis in the left eye which was in a short time followed by a similar condition in the right eye. After the disappearance of the eruption there remained reddish-brown stains and here and there on the back

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Cutaneous Medicine and Surgery, and approved for publication by the Executive Committee: Drs. W. T. Corlett, L. Duncan Bulkley and W. L. Baum.

oval pits. The patient had never been vaccinated, but secured a successful vaccination in the hospital.

CASE 2.—A colored man employed by a physician was sent into the hospital supposedly suffering with smallpox. On admission the disease was diagnosed as syphilis and the patient was placed in an uninfected building. He presented a generalized papular eruption over the face, arms, trunk and legs. On the following day he was discharged from the hospital.

CASE 3.—A young man, 20 years old, contracted a chancre about Sept. 1, 1901. October 21 he was examined by three skilful physicians, a professor of genito-urinary diseases, a professor of medicine and a city medical inspector. He was declared to have smallpox and was sent in to the Municipal Hospital. About a week prior to the development of the eruption the patient had slight headaches, chilly feelings, fever and night sweats. These symptoms, however, were not of sufficient severity to cause him to cease his work. He had been feeling languid and weak for a month or more preceding the appearance of the eruption.

Fig. 1.—Case 1.—Papulo-pustular syphilide sent to hospital as a case of smallpox.

At first sight the eruption would have passed for the efflorescence of a discrete smallpox. On closer inspection, however, it became evident that something was lacking in the picture, although it would have been difficult to express this deviation in so many words. The suspicion of syphilis was strengthened by the presence of the remains of the chancre.

The eruption, which was present on the face, trunk and extremities, consisted of small reddish papules, some of which had acquired vesico-pustular summits. In about ten days these had increased in diameter and were beginning to ulcerate beneath the crusts that had formed. A severe ulceration of the tonsils developed about this time. The patient was discharged from the hospital at the end of two weeks. By this time the ulcerative process had become pronounced. The lesions enlarged rapidly to the size of five-cent pieces, some indeed to the size of a silver quarter dollar. These became distinctly excavated and were covered with rupial-looking crusts. The soft palate was then attacked, extensive destruction of tissue taking place. The patient developed chills, high fever, sweats and rapid emaciation and was in imminent danger of death. Under the vigorous use of mercurial inunctions and a general tonic treatment, the patient improved and was again able to resume work. A couple of months later, although constant treatment had been kept up, the patient developed on the scalp two large ulcerating gummata. The malignancy of the disease in this patient is readily understood when such lesions manifest themselves scarcely eight months after infection. The point of interest in connection with this case is that a disease, later frankly syphilitic, should at the onset have presented such a strong counterfeit of smallpox as to have deceived several skilled and experienced physicians.

CASE 4.—A woman, aged 50, was sent into the hospital after having been carefully examined by several physicians. She presented on the face, trunk and extremities a generalized eruption consisting of lentil-seed-sized papules. She had had no distinct prodromal illness and was not at all prostrated on admission. On the left thigh near the groin was a round, firm, slightly elevated plaque about a centimeter in diameter with a superficially ulcerated surface. This was evidently the initial lesion of the disease which was diagnosed on admission as syphilis. The patient was immediately vaccinated and completely protected against the infection which surrounded her.

THE SIMILARITY BETWEEN THE TWO DISEASES.

It may at first thought seem strange that smallpox and syphilis should ever be confounded. On reflection, however, it will be seen that the diseases may have many symptoms in common. They are both infectious diseases, due, we may assume, to the invasion of the blood with a micro-organism. Each has a period of incubation, at the end of which there develop certain general manifestations accompanied by an exanthem and an enanthem. The resemblance may be still further accentuated by the fact that the variolaform syphilid is not rarely associated with and even preceded by fever and general aches and pains. It is particularly the pustular syphiloderm which is apt to be confounded with smallpox. This may be the first eruption to manifest itself or it may follow several months after the appearance of a macular or papular syphilid. The eruption at times may appear rather suddenly and pass through the stage of papule, vesicle and pustule in a surprisingly brief period of time. The lesions may be very firm to the touch and in other respects closely simulate those seen in small pox. Liveing, Jonathan Hutchinson and others have testified to the fact that in some cases the differential diagnosis is at the outset quite impossible. Hutchinson says: "The simulation of the variolous eruption by syphilis is the most marked example of syphilitic imitation. The papules are shotty to the finger, have depressed centers, affect the same region as variola and resemble it so absolutely that nothing but the history of the case can help the surgeon to a correct opinion."

HISTORY OF INFECTION WITH SYPHILIS.

In syphilis one can frequently obtain a history of infection and a description of the initial lesion. Indeed, the chancre or its remains may still be detected. Not uncommonly there are present associated evidences of syphilis, such as mucous patches, flat condylomata, ulceration of the tonsils, alopecia, etc. The variola-

form syphilid may develop after the disappearance of one of the earlier cutaneous outbreaks of syphilis.

DIFFERENCE IN ONSET.

The onset of the two diseases is, as a rule, quite different. The syphilitic patient will usually give a history of having felt weak and debilitated for some weeks. If fever precedes the eruption it is not very high and is not accompanied by severe prostration. When the rash appears the patient will usually call on the physician at his office or at a dispensary. We do not note that sudden illness which precedes unmodified smallpox. In this disease two or three days before the efflorescence appears the patient experiences a chill followed by a rise of temperature often to 103, 104 or 105. There are severe headache, backache, vomiting or nausea, vertigo, general pains and severe prostration. The patient instead of calling on the physician sends for him.

It must be remembered, however, that patients suffering from an attack of smallpox that has been rendered mild through previous vaccination or through a certain degree of natural insusceptibility, often experience but slight initial symptoms. On the other hand, in rare cases, syphilis may produce an initial illness which strongly counterfeits that of smallpox. The following is a case in point:

Fig. 2.—Large papular syphilide suspected of being smallpox during the prevalence of an epidemic of the latter disease.

W. J., a colored man, 24 years of age, developed a chancre about Nov. 1, 1901. Thursday, December 26, he was taken sick with fever, accompanied by great thirst and heat of skin, severe headaches and general pains. Following this, chilliness, fever and vomiting at night. He stopped work and went to bed on Thursday. Three days later an eruption developed. He rose from his bed January 2 and on the following day presented himself at the skin department of one of our hospitals. At this time he was covered with a profuse eruption consisting of pinhead and larger sized papules. The eruption was most copious on the back. The lesions were apparently at the mouths of hair follicles, and showed slight follicular umbilication in the center. The face showed lesions around the border of the hair, on the forehead and in the bearded regions. The eruption was also present on the arms above the elbows and on the thighs. None was present on the wrists or hands. On the prepuce was a hard cartilaginous chancre, ulcerated in the center. Smallpox was at once excluded by the fact that the lesions had not developed to the stage indicated by the duration of the eruption.

SUDDEN ERUPTION IN SMALLPOX.

The appearance of the eruption in smallpox is rather sudden. Ordinarily in 48 hours the full complement of lesions is present. In syphilis the eruption may continue to come out for a number of days; in other words, the lesions appear in crops. It must be admitted, however, that in some cases of modified smallpox the appearance of the lesions may, in some cases, be spread over a period of three or four days.

It is stated in a prominent treatise on smallpox that enlargement of the inguinal glands may be regarded as a manifestation pointing to the diagnosis of syphilis. The writer has on many occasions examined the inguinal glands in smallpox with the view to their comparison with those of syphilis. It may be stated that the superficial glands are, as a rule, considerably enlarged in smallpox. The presence of a generalized or localized adenopathy is therefore of little or no diagnostic value.

DISTRIBUTION OF ERUPTION.

The distribution of the variolaform syphilid may be identical with that seen in smallpox. Frequently, however, there are variations observed. The pustular syphilid may involve the trunk more copiously than the face. This would be excessively rare in a well-marked smallpox. The dorsal surfaces of the wrists and hands are nearly always involved in smallpox, but may escape entirely in syphilis. The palms of the hands and the soles of the feet are always involved in severe smallpox. In moderate eruptions they nearly always present some lesions; in mild cases of varioloid they may or may not escape completely. The pustular syphiloderm affects the palmar and plantar surfaces with the greatest rarity. In Case 4 the writer observed a single lesion on the palm of one of the hands. In another case a deep-seated pustule was seen on the lateral surface of the sole of the foot. All writers are agreed as to the great infrequency of the lesions of the pustular syphliloderm on the palms and soles. This is in striking contrast with the papular syphiloderm which commonly involves the palmar and plantar surfaces.

THE CHARACTER OF THE ERUPTION.

In the beginning the eruption may be so nearly identical in the two diseases as to make a diagnosis from this symptom alone quite impossible. It will be noted, however, that the efflorescence of smallpox presents a much greater degree of uniformity, a more uniform development of the lesions over the body than does syphilis. (It should be remembered, however, that the lesions on the face in smallpox are, as a rule, a little in advance of the eruption elsewhere.) Syphilis is characterized by an essentially multiform eruption; it is not uncommon to find small pustules, large pustules and papules interspersed and these in varying stages of evolution and involution. The lesions of syphilis may be grouped in the form of circles or segments of circles, particularly about the border of the hair, the commissures of the mouth, etc. The vesicles and pustules of syphilis are usually conical and involve merely the summits of the elevation. They never become full and globular, filling the entire lesion, as do those of smallpox. The pustules of syphilis may remain small or may

later grow to large size, drying into brownish or greenish crusts. Beneath the crusts considerable ulceration not uncommonly occurs, according as that is slight or severe there will be seen on detachment of the crusts a reddish brown pigmented oval or round stain or an excavated ulcer. The latter heals with the production of depressed scars. The superficial and non-ulcerated pustules frequently exhibit at their base a scaling collarette.

THE COURSE OF THE ERUPTION.

The course of the syphilitic eruption is relatively chronic compared with that of smallpox. The lesions of variola undergo a striking change in a few days. The syphilitic efflorescence is indolent and presents, as a rule, no decided alteration of appearance within this period of time. By the sixth or seventh day in smallpox the lesions develop into these full, round, hemispheric, grayish or yellowish pustules, which are so characteristic of the disease.

Finally, to the physician who has seen much of smallpox, there is a something in the picture, an impression given by the *ensemble*, which, while not definable in language, is nevertheless a subtle aid in the diagnosis. Whenever the diagnosis between syphilis and smallpox is in doubt, observation of the progress of the eruption for a period of 24 or 36 hours will usually make clear the nature of the disease.

DISCUSSION.

DR. W. S. GOTTHEIL, New York—In spite of the distinguishing points to which Dr. Schamberg has called attention, there are occasional cases in which it seems impossible to differentiate syphilis from variola. During a smallpox epidemic that occurred some years ago in New York a number of patients suffering from the disease were sent to the venereal wards of the old Charity Hospital with the diagnosis of lues, the mistake being exactly the opposite to the one here recorded. These cases are often seen only once, and a diagnosis must be made; and in doubtful cases I would place much reliance on the fact that in variola the lesions are all of about the same age and in the same stage of development, while in the pustular syphiloderm there are younger papular efflorescences interspersed with them. In some cases, however, it is quite impossible to make an absolute diagnosis immediately.

DR. A. RAVOGLI, Cincinnati—The point that the distinction between syphilis and smallpox may be made by the history or presence of a chancre can help the diagnosis, but in cases of syphilitics taking smallpox this sign would be of little value. I find that not much attention has been called to the condition of the mucous membranes of the mouth, and this is one of the symptoms on which, when present, I place a great deal of reliance. In smallpox we have lesions of the mucous membranes of the palate, which is especially seen at the time of the prodrome, a few hours before the eruption appears in form of small, reddish points or of small vesicles, scattered over the soft palate. In syphilis we have an entirely different condition of the mucosa of the mouth in form of erythema faucium and mucous patches, which can be considered one of the best characteristics distinguishing between smallpox and syphilis. I have been called in consultation by health officers of small cities or by physicians who had quarreled between themselves, some saying it was a case of smallpox and some saying it was a case of syphilis, and in order to avoid a lawsuit they wanted it decided right away. I have found it rather difficult to decide in so short a time whether it was smallpox or syphilis. The condition of the mucous membranes has sometimes helped me out in those doubtful cases. The fever, too, is a good sign. In syphilis the fever is only accidental and is very mild, but in cases of smallpox usually it is of a more severe type, preceding for a couple of days the eruption, which comes much quicker than any eruption of syphilis.

DR. W. T. CORLETT, Cleveland—I agree with Dr. Ravogli that sometimes to make a differential diagnosis on the spur of the moment is indeed a difficult task. In two instances within the last six months I have been forced to make a snapshot diagnosis from insufficient data; in both a few hours revealed the error of this practice. In another case the physician in attendance gave the clinical history as follows: The man had been ill four days, had been sick and vomited, had a rise of temperature of four degrees, had irregular pains in his shoulders and back, and there was a distinct eruption, first appearing on the back, and when I saw the patient a few days later it was appearing on the anterior aspect of the body. It appeared to be a typical case of variola, and after studying the case for more than 24 hours we found a new group of vesicles appear. But the eruption was not evanescent, and in a few days slight induration could be detected, when it looked like variola. This was excluded within a few days, and it was not until nearly a fortnight had elapsed that a positive diagnosis of semi-malignant syphilis was made. As Dr. Ravogli has said, the multiform character of the lesions with the tendency to induration at their base is an important feature to take into consideration in making diagnosis.

DR. C. W. ALLEN, New York—I recall a case in which the history and presence of chancre was not present to guide us, but there was an extensive phagedenic ulceration of the prepuce and glans penis that had undermined the skin of the penis up to or almost to the pubes. The nature of this phagedena was not known, but we discovered groups of pustules all over the body, the ears, face and forehead and all over the back. It looked very much like smallpox and there was nothing to show that there had ever been a chancre present. We had suspected that the phagedena was probably of chancroidal origin. We referred the case to the Board of Health, and after a very careful analysis of the case they isolated the man. They did not want to send him to the smallpox hospital that day, but they thought the case was thoroughly suspicious, and they kept him isolated two or three days—it turned out to be syphilis. That was the first eruption the man had had, and the lesions were all pustules, with no multiformity of lesions. They were all of the same nature.

DR. H. W. STELWAGON, Philadelphia—I have met with one instance in which a positive diagnosis between syphilis and smallpox could not be made for a period of nearly three days. This case was also seen by one of our best clinicians; it was seen by a specialist in genito-urinary diseases, and by other physicians, and for almost seventy-two hours not one was willing to venture an absolute opinion, but it turned out to be a case of syphilis.

CONCERNING SOME VACCINAL ERUPTIONS

HENRY W. STELWAGON, M.D.
PHILADELPHIA.

The discussion which followed this address at the Saratoga meeting was, by an error, omitted last week (THE JOURNAL, *November 22, p. 1291). It is as follows:*

DISCUSSION.

DR. M. B. HARTZELL, Philadelphia—This subject is one which has been very much neglected. There is no doubt that eruptions of various kinds may follow vaccination, some of them at times serious, perhaps even dangerous to life. I think it would be worth while for those interested in diseases of the skin to study this subject carefully. The whole subject is in a good deal of confusion, and I regret to say that many physicians, as well as the laity, are inclined to regard vaccination as responsible for all sorts of things. Personally, it has seemed to me unscientific that vaccination should be regarded as a cure for anything or a preventive of anything but variola, yet the layman is convinced that vaccination works some change in the blood which alters the susceptibility to diseases of the skin. People have come to me and desired to be vaccinated because they thought it would cleanse their blood. The profession itself is largely to blame for some of these ideas because there are many physicians that either tacitly or in so many words declare that vaccination is responsible for all sorts of things. It has happened frequently that patients have

been referred to me with the statement that their eruptions were due to vaccination, when it was readily shown that vaccination was blameless. I think we owe it to ourselves and the general public to learn just what are the exact facts.

DR. H. G. ANTHONY, Chicago—Of the bullous eruptions which occur after vaccination, I believe that impetigo contagiosa bullosa is one of the most common. Exactly how the disease is contracted, I do not know, but it is most frequently observed where there is the ordinary form of impetigo in the family at the time of vaccination.

I am sure the dermatitis herpetiformis may follow vaccination. Pusey describes an undoubted case. I have observed one in which the patient had repeated attacks; each attack was preceded by severe itching for 24 to 48 hours. The disease was controlled by arsenic in a most remarkable manner.

DR. M. L. HEIDINGSFELD, Cincinnati—I have had some cases of eruption following vaccination and my conclusions have been a little different from those of Dr. Stelwagon. The contents of those bullous eruptions will promptly produce vaccinia, and that in some measure will show that the eruption has some relation to smallpox or variola. As far as I was able to determine these cases of bullous eruption occurred in one of two different ways. They occur either promptly after vaccination, as in ordinary eruptions of different types, or it is the reaction of the system against the intoxication of vaccination.

DR. JAY F. SCHAMBERG, Philadelphia—The allusion of the chairman to vaccinal rashes is most apropos at the present time, owing to the widespread prevalence of smallpox in this and other countries. More vaccinations have probably been performed in the United States within the past two years than in the previous fifteen years. The etiology of vaccinal eruptions is better understood if we regard vaccinia as a mild infectious disease complicated by the presence of a cutaneous wound. Many infectious diseases, such as measles and scarlet fever, are capable of determining the outbreak of an eczema, a psoriasis or some other dermatosis in individuals predisposed to these affections. Vaccinia may act in a similar manner. It is probable that many of the bullous eruptions which occasionally follow vaccinia are due to the accidental introduction into the system of extraneous bacteria or their toxins, which may gain access through the cutaneous wound. There is a tendency, much to be deplored, on the part of physicians as well as laymen, to attribute to vaccination any eruption which may happen to develop after its performance. In many of these cases the eruption manifestly bears no relation to the vaccination save a chronologic one. I have recently seen two patients who each attributed an eruption to a vaccination performed three or four weeks previously. In both instances the eruption proved to be an extensive ringworm which was traced to contact with domestic animals.

DR. A. RAVOGLI, Cincinnati—We find that in the inoculation of the vaccine virus the physician is responsible for the introduction of other morbid germs. At present, as we are using the virus taken directly from the cow, the inoculation of syphilis, together with the vaccine virus, is not so common. I remember many years ago a small localized epidemic of syphilis which had its origin from the inoculation of vaccine virus contaminated with syphilis, taken from a syphilitic child. The most interesting infections to-day are from the different staphylococci and streptococci, which often the patient himself inoculates on the little wound resulting from the vaccination by scratching with his finger nails. Not long ago I was called to see a boy affected with a bullous erysipelas covering nearly the whole body, as the result of vaccination. The boy died in consequence of this erysipelas. In this case we do not have to incriminate the vaccine virus as the factor of the erysipelas, but the accidental inoculation of the streptococci, probably by the boy himself. Many cases of vesicular and bullous eruptions in the form of dermatitis consequent to vaccination have occurred in my practice, which I have considered the result of staphylococcus inoculation. The pustula following the inoculation of the vaccine virus is accompanied with intense itching, and, in order to satisfy the pruritus, children will scratch with their finger nails. The finger nails take quantities of staphylococci from the little wound and scratching in other parts inoculate the pus-producing germs, which cause a form of dermatitis of the mentioned types. In some cases I have seen reinoculated the vaccine virus through the finger nails in different parts of the body. In a case of an adult he had inoculated the tip of his nose.

In reference to other diseases like psoriasis, etc., I have never had occasion to see cases of the kind following vaccination. I find we have nothing to be afraid of from vaccination if we pay careful attention to asepsis, and enforce rules strictly.

DR. W. T. CORLETT, Cleveland—I think it is of special importance to bring this subject before a body of men such as are here to-day. The public have an idea that almost anything that follows vaccination, whether it comes a few days, weeks or years after, is due to vaccination. We all, in our practice, have had such instances occur. The question that occurs to me is: Do we have more contagious manifestations at the present time with bovine virus than was formerly the case with arm-to-arm vaccination? When I began to practice medicine arm-to-arm vaccination was the rule, whereas the virus is now derived from the cow. So far as my experience goes, mothers bringing in their children and adults presenting themselves with eruptions, eczema or psoriasis, will claim the disease is due to vaccination. Without almost any exception, as far as I am able to find out, there has been no connection between the diseases present and vaccination. In a few instances I have seen a general bullous eruption following vaccination, which I have regarded as the ordinary impetigo. At any rate, I have seen no difference between that and the ordinary impetigo and have so regarded it. There is one point that ought to be brought out. We often produce local effects in vaccination that do not give rise to any serious disease of the skin, but affects the spot locally. This sometimes gives rise to a great deal of apprehension. People oftentimes regard themselves immune from smallpox if they have a large scar, well defined; they think they are well vaccinated. Such vaccination does not prove anything so far as protection against smallpox is concerned. It has given rise to inflammation resulting in ulcer and the principles of vaccine may be entirely absent.

In regard to diseases following vaccination, such as psoriasis, I believe we may have them following vaccination. A woman presented herself at the hospital, who was declined admission on account of psoriasis, but it was found the eruption was caused by the rubbing of her clothing. We do not have psoriasis produced by irritation. I would not regard the process of vaccination as contributory.

DR. C. W. ALLEN, New York—I think a representative body like this should decide a few points in the matter for the guidance of those who are interested from the practitioner's standpoint. One is that we can have a great variety of complications of vaccination in the nature of skin diseases of various kinds which might occur at any other time, vaccination being merely an incident. Aside from those we can have a more or less generalized vaccinia, due to an accidental inoculation by the subject's finger nails carrying the virus to other regions of the body, and generally it is unwise to vaccinate a child who has pre-existing eruption of eczema, impetigo or generalized acute eruption, especially of pruriginous nature like scabies. I have seen multiple vaccinia scattered over the arms, behind the ears, about the face and on various regions of the body, which simply meant that the child had scratched and transferred the vaccinia to those regions. I have been called in consultation to see a man who had an enormously swollen face, with the eye closed and features distorted. The diagnosis was in doubt. Investigation developed the fact that he had taken care of a child that had been vaccinated and had accidentally inoculated himself on the upper lip. It has happened to physicians that they accidentally inoculated themselves on the tip of the nose, and if there is anything you want to avoid doing it is that. It makes an enormous swelling and is one of the worst things that can happen to a self-respecting physician. I saw a physician last year who had accidentally inoculated himself in the eye, in breaking off the tip of the vaccine tube, and he almost lost his sight, while for months he had a terrible time from it. You can imagine what vaccination of the conjunctiva would accomplish. When we are confronted with a

more or less generalized vaccinia-like eruption I think we should admit at the present day from the evidence referred to in the paper that it is a systemic effect of vaccination and that when we have a bullous eruption such as has been described, it is probably true vaccinia. When the American Dermatological Association met in New York a few years ago I took a little child to the meeting to show this form of generalized bullous vaccinia, and many of the members said it was the first instance they had seen. I think we have these three distinct classes of eruptive disease, and then I believe in the first class we may include dermatitis herpetiformis, which, although it resembles impetigo contagiosa, it may also resemble pemphigus, but continuing perhaps for several years, each being preceded by inflammation, a condition of malaise, restlessness, and itching of the skin. These symptoms also relate to dermatitis herpetiformis. I believe that dermatitis herpetiformis may have many causes and vaccination may be one of them.

DR. E. L. COCKS, New York—I am satisfied that one-tenth of all the cases we see are due to the operator himself, and I am thoroughly convinced after a series of thirty cases of children between the ages of 3 and 9 on whom I was surgically experimenting. I had the arms cleansed with soap and ether, then vaccinated the child, and immediately sealed the wound with collodion. That was kept on until it dried, about half an hour, and then covered with a bandage. The highest temperature I had in those cases was 99 degrees, and on the seventh day I examined the arms. They were all successfully vaccinated and the vesicles were typical in each case. I had not one case of any eruption mentioned here this afternoon. It seems to me if we properly vaccinate the patients that come to us and advise them to take all antiseptic precautions we will not see all sorts of diseases and eruptions as mentioned here this afternoon. But as long as a physician will vaccinate a patient without any precautions at all, taking the needle out of a case, scratching the arm and rubbing in the virus and then letting the patient go before it is dry, we are going to have these manifestations.

THE PLACE AND IMPORTANCE IN THE COLLEGE CURRICULUM OF PHARMACY.

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The medical college curriculum is a course of didactic and clinical study laid out by experienced medical men and intended to take the medical student over such work as will best prepare him to enter on the practice of medicine and surgery. Like all plans or outlines intended to guarantee a structure that will withstand the assaults of time they require a proper foundation, and this we may call the preliminary education of the student; then, upon this foundation the medical curriculum should rise with the elementary years in medical schools filled with those broad and ever-broadening basic studies upon which the practice of medicine was founded, and from whose increasing breadth and depth the modern practice of medicine has received its nourishment, and is continuing to receive a daily stimulus.

PRELIMINARY EDUCATION.

The common school education, while never considered broad enough, was formerly thought to be enough for a student to have before entering upon the study of medicine, but as the study of medicine has broadened the better schools have increased their entrance requirements, and a few have demanded college degrees. Leaving out the entrance demands of the various colleges, let us see what the science of medicine and the limits of the better medical schools would require before entering on their work. Thorough drilling on the three R's is demanded before going forward in the common schools, and their elaboration into the higher literature, logic and composition work, algebra and geometry of the high schools and academies, is preparatory to the study of the more diversified fields of literature, mathematics and natural sciences of the colleges and universities.

No student of modern medicine can deny the necessity for thorough instruction in the use of the English language, a fair knowledge of Latin and preferably a reading knowledge of French and German; that the study of mathematics is of great value in preparing the mind for the higher and deeper studies that require exact and prolonged efforts on the part of the student; that the principles of bacteriology, botany, biology, embryology, chemistry, physics and allied scientific branches are prerequisite before a student can enter intelligently upon the course in the modern medical school. The medical schools and the colleges and universities should come into more intimate relations on these propositions, and thereby insure a better preparation for the future medical students than their predecessors have had, and I believe that that condition will be brought about in the near future.

ELEMENTARY BRANCHES OF THE MEDICAL COURSE.

Anatomy, physiology, chemistry and materia medica were formerly and are to-day classed as the elementary studies in a medical curriculum, but witness the subdivision of anatomy into its various normal and pathologic sections, so that its study as a basic subject is now spread over more time than was formerly allotted to the entire course in medicine. Physiology, while it has not been amplified to the same extent as anatomy, has become more intimately united with the clinical side of medicine and has carried several subdivisions of chemistry along with it. Materia medica and chemistry have remained strong and intimate allies and are still going hand in hand.

PHARMACY AND ITS RELATIONS.

Pharmacy or the science of preparing the drugs used in medicine has a chemical basis; pharmacology or the science treating of the action of drugs on the animal economy concedes the action to be due to a chemical union of some type between the drug and the cell elements; therapeutics or the application of drugs in the treatment of pathologic conditions must consider their pharmacy and pharmacology.

The value of the thorough study of these elementary branches and their subdivisions, to one intending to continue the preparation for the practice of medicine and surgery, is as self-evident as the need of a proper foundation for the erection of the modern building, they must be present and in proper position or the student is unable to complete his course, and continues throughout his professional life crippled by incomplete preparation.

Pharmacy is defined as the art or practice of preparing, compounding and dispensing medicines, and more completely by Remington as the science which treats of medicinal substances, comprehending not only a knowledge of medicines and the art of preparing and dispensing them, but also their identification, selection, preservation, combination and analysis. Thus we can see the importance of training the medical student in a science that controls the quality of his drug remedial agents. The pharmacy student needs a more thorough course than the medical student, but the latter should be instructed in the principles of pharmacy and pharmaceutic processes so that he can intelligently order the

use of their products. Pharmacy deals with the origin or source of the drugs; the methods of extraction, purification and preparation of the finished from the crude forms; the chemical and physical properties and the preservation of the crude and finished products; the determination of the strength or the standardization of the finished preparations; and the best methods of combination so that the drugs can be administered with a minimum disturbance to the patient's system and be dissolved for absorption with a minimum delay.

The teaching of this subject in a medical school requires a combination of pharmacist and physician or one who has had a pharmacy education and practice that has subsequently been modified by a medical education and practice, thereby having the faults of the one restrained and corrected by the experience in the other. The average graduate in medicine, who has had a previous training in pharmacy, prescribes with greater ease and accuracy, therefore obtains better therapeutic results than the one without this training. This combination of pharmacist and physician is hard to obtain, yet the departmental head having this in charge should be such an one as I have indicated, and he should be given such assistance and equipment as is necessary to carry out his plans for the instruction. Many of the preparations being chemicals and many, whose chemical structure is not definitely known, having a chemical or decomposing action upon others, makes necessary a knowledge of chemical principles, especially regarding decomposition reactions, thus making chemistry one of the foundations for pharmacy. Most tests for purity, identification, properties, etc., of the drugs are chemical in character. Form, solubility, weight and other physical properties are usually discussed with the chemical.

Physiology and anatomy are related to pharmacy only so far as they may govern the combinations and the size of the dosage according as to the methods of administration. Physiological tests as to strength and purity are increasing in importance owing to the introduction of more definite physiological chemical methods and of the animal and bacterial products as medicinal agents.

Materia medica in its restricted sense is merely the listing of the preparations, giving the medicinal or official name, average adult dosage and properties of the preparations named, thus becoming a branch of pharmacy; but if taken in its older and broader meaning, it includes all of pharmacy, pharmacology and therapeutics.

Pharmacology or the study of the action of drugs upon the animal economy is dependent upon the purity and form of the pharmaceutical preparations, the size of the dose, the place and method of administration, the rate of absorption and the individual reaction of the animal used in the test. Therapeutics or the use of drugs in the treatment of disease is very dependent upon the purity, strength, form and solubility of the drug used and the method of administration.

PHARMACOPEIA.

The pharmacopeia is the list of the official medicinal preparations together with directions for their preparation and tests for their identity, strength and purity. Each country has a pharmacopeia of its own, or has adopted that of some other country as its standard, and in many countries it has been made the legal standard.

The United States Pharmacopeia is revised decennially, this being carried out by a committee appointed by a convention composed of delegates from incorporated medical and pharmaceutic colleges and societies and the United States Army, Navy and Marine Hospital services. The eighth revision is now in progress by the committee appointed by the convention of 1900. This revision committee is composed of physicians and pharmacists, has complete charge of the collection, arrangement and publication of the pharmacopeia, continuing in existence throughout a term of ten years, during which time it is collecting material for their successors' use in the next revision. The committee is selected because of the experience and capabilities of its members, and they are continually requesting and receiving advice about the various preparations from individual members of each profession. Since the statements in the pharmacopeia are thus founded upon experience and are placed in form after due consideration by the committee, their acceptance by the members of each profession should be complete and in so far as it is possible they should confine themselves to their use. The medical schools should put more stress upon these official preparations and the text that lists them, for the better they are known by the medical graduate the better he will be able to prescribe them and he will get better results from his medication. Fewer worthless drugs or mixtures will be prescribed the nearer the prescriber restricts himself to the list of official preparations. Familiarity or exact knowledge of the armamentarium is required for the successful pursuit of any professional, business or mechanical calling. Drugs are at present a necessary adjunct to the successful treatment of many pathological conditions and therefore the better preparation the physician has in this direction, the better drugs will he prescribe, and so far as drugs are needed in the case, the better results will he obtain. There is no need of the physician knowing all the official preparations, but he must at least have knowledge of the general principles governing each class and special facts about the more important members of each class.

MORE KNOWLEDGE OF PHARMACY NEEDED.

Proper prescribing, from the pharmaceutic point of view, involves consideration of the physical and chemical changes or incompatibilities that may be present, the physiologic or therapeutic incompatibilities being outside the province of pharmacy. Thus we see that the physician must have studied and retained the general principles of chemical decomposition, the chemical composition or constituents of the materials prescribed, the factors that will increase or decrease the rate and character of decompositions that may arise, the solubility in various solvents or menstruums of the drugs used, the taste and local irritability of the components of the prescription.

The physician writes his prescription with the idea of accomplishing certain results, so far as drugs will bring that to pass, and to do this the more definite his drugs are in their composition, the greater freedom from physical and chemical changes due to the combinations ordered, the greater the palatability and solubility of the mixture without a reduction in its required effects, the better will he succeed in his endeavors. Thorough training in the principles of pharmacy will enable the physician to write prescriptions that will fulfill the above requirements, thereby increasing the probabilities of obtaining the results that drug treatment can produce.

The pharmacist or compounder of the prescription should have such knowledge of his calling as to enable him to compound it with due consideration given to the points involved in its writing. Many prescriptions give irregular or imperfect effects because of the pharmacist's

lack of special knowledge required for their compounding so that chemical or physical changes will not be brought about.

The patient expects the physician to be thoroughly competent to write and the pharmacist to compound the prescription for his use, thereby insuring him a better effect and a speedier recovery from his diseased condition. Any pharmaceutic deficiency in the drug selection by the physician, or by the pharmacist in preparing the mixture will serve to decrease its efficiency and thus the patient will not receive the beneficial results he has a right to expect. We therefore can see the importance to all concerned in having a proper pharmaceutic prescription written and compounded.

THE TEMPTATION TO USE PROPRIETARY GOODS.

The examination of any pharmacist's prescription files will soon convince a physician that there is a great deal of imperfect prescribing. Many mixtures are ordered that have such prominent chemical and physical incompatibilities that they can not be combined without so many changes occurring as to render them inert, unpalatable, irritant or in some manner incapable of producing their desired effects. Many that without having a decomposition occur are so unpalatable that they can not be readily administered or after administration be retained and absorbed, whereas a little knowledge of the principles of pharmacy would frequently have enabled the prescriber to add some menstruum that would have decreased, if not completely prevented, the irritation and thereby increased his chances of obtaining the desired effects. The various elixirs, syrups, wines, solutions, etc., of proprietary or semi-proprietary character that are on the market are daily brought to the notice of the profession and the laity by circulars, agents and in the medical and lay publications. They owe their great popularity with the public to the directions so freely given in their advertising and wrapping circulars, thereby obviating the necessity of a consultation fee for the physician. The professional user finds a preparation ready-made for administration that does not require any thought on his part about compatibility or other pharmaceutic properties nor as to their dosage; for has he not been fully supplied with advertising matter describing the careful selection of the drugs, the expert assistance employed in their combination, the therapeutic indications for their use and the size and frequency of the dosage? Not only does the unprepared prescriber find liquid mixtures ready for his use, but all kinds of solid preparations are also awaiting him. No one can deny the valuable service rendered on many occasions by some of these preparations, but the physician who places his chief dependence upon these prescribes by rule and not by reason. He uses a dosage and mixture that is based on general therapeutic indications without being able to make such changes in constituents and their proportionate dosage as the special case would indicate. The free use of this class of pharmaceuticals can, in my estimation, be laid to the ease with which they can be obtained, the less knowledge demanded in their prescribing, the slight knowledge the average prescriber has of pharmacy, and the general tendency to recover from abnormal conditions if nature is not interfered with in too many ways. Just as long as drug therapy proves of value in the treatment of disease it will be a necessary portion of the students' and physicians' course of instruction and the principles that govern the selection and pharmaceutic properties of the drugs are just as important as the knowledge of their dosage and action.

The more exact the preparations can be made the more definite will be their action and they will be more exact the nearer they conform to the official or established lines indicated by the pharmacopeia. The better the instruction given the medical student upon these principles of pharmacy and pharmaceutic practices, the better able he will be to order drugs that can be administered and that will produce the therapeutic effects desirable in the diseased condition.

The fact of so much imperfect prescribing is enough to demand a better instruction in the pure pharmacy of the drugs than has been given in the past in any medical school. The tendency to draw away from this study that is being shown in many medical institutions must be corrected or their graduates will go out less prepared to prescribe drugs than they have been in the past and until we reach the condition in which we can do without drugs, the physician must prescribe them. Prescribing for his patient has always been one of the weakest points in the young physician's preparation for the practice of his profession.

CONCLUSIONS.

1. Better preliminary preparation is required (both general and scientific) than has been the rule for medical students.

2. The study of chemistry, botany and physics should be thorough, especially along the lines of their basic principles, before a student enters upon the medical course itself.

3. The pharmaceutic bearings of chemistry, botany and physics as well as the general principles of pharmacy should be considered during the first year's work in the medical school proper.

4. The next year should present the general application of the principles and practice of pharmacy to the prescribing of drugs, and should preferably be given by a teacher qualified by both pharmaceutic and medical experiences.

5. The clinical or practical year's instruction should not pass over the pharmacy of the drug treatment with a few words, but should give full directions from the pharmaceutic as well as the pharmacologic side of the use of the drug. Whenever drug treatment is indicated it is just as essential to produce beneficial results for the patient as the ability of the physician to diagnose the pathologic condition present, and pharmacy is as essential for therapeutics as pathology for diagnosis.

6. Pharmacy is the basic study that gives the physician the most exact knowledge possible regarding the quality of his drugs, hence should be begun in his earliest student days and continued throughout his entire college course and professional life, unless he becomes an osteopath or a christian scientist.

7. Adherence to the official preparations of the pharmacopeia is desirable and more thorough instruction upon its principles will prove valuable.

THE OUTDOOR TREATMENT OF TUBERCULOSIS.*

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Few medical men will now dispute the fact that our great remedies in the treatment of tuberculosis are pure air, rest and food. The more abundantly the former can be given the greater and faster will be the progress

* A paper presented at the meeting of the Colorado State Medical Society at Pueblo, June 24-26, 1902.

towards recovery. Pure air in greatest abundance can best be secured by tent life. It is a pleasure to witness the rapid improvement when this mode of life is inaugurated. The sleep becomes more restful and refreshing, the appetite is improved and the vigor and vitality greatly increased.

Tent life does not mean or should not mean roughing it, as many suppose. The same watchful care should be exercised, as good food given, as comfortable a bed, as much rest, as would be obtained in the most luxurious home or the best equipped closed sanitarium. The unfortunate results arising from mistaken notions in this regard has been most forcibly emphasized by a case recently coming under my observation. A young man with rapidly developing tuberculosis, rapid emaciation, daily fever, with little appetite and little strength, was advised by his physician to come west. He was told to get a tent and a horse and rough it. He was advised to cook his own food and to take care of himself and of his horse whether he liked it or not. He graphically described his experience, and were not the results so serious they would have been amusing. He said: "I had never been on a horse but once in my life. I lifted a heavy saddle on and off several times a day, hauled away at the cinch band, fought to get the bit in, chopped bales of hay and straw, carried pails of water, etc. In consequence I had the most horribly strained right lung and shoulder on earth. The temperature went up to 104 and the pulse 118."

A tubercular patient with little appetite, with little strength, with progressive emaciation and fever, is in no condition whatever to rough it or to take care of himself. Indeed, it should now be recognized as a cardinal principle that a tubercular patient in such condition should be given rest and quiet instead of exercise, and if the temperature is high the rest should be absolute. Not infrequently people are sent from the east to a high altitude and are advised to take little or no medicine, but to depend on fresh air and exercise. The advice should be for fresh air and no exercise until the patient becomes acclimated or until the fever has subsided, if present.

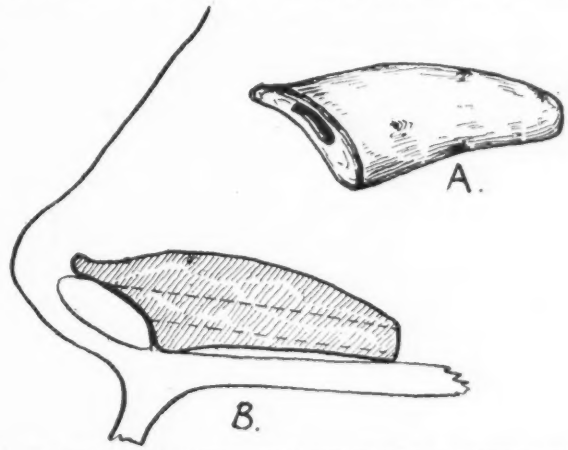
The idea of tent life has so long been identified with roughing it, with hardship and inconvenience and so many physicians still cling to the thought that the strenuous life of the camper is a part of the treatment that it is often difficult to impress any other idea. The hardships and the inconvenience of tent life where one is obliged to do all the work and to care for himself is often distasteful and irksome to a perfectly well and strong individual, but to the invalid with little strength, with no appetite and with fever, such a life is positively most injurious. While advising tent life as the means of obtaining the greatest amount of pure fresh air, yet we would advise with it and as a part of the treatment, food, rest and comfort. To insure the best results those who take up tent life should do so under careful medical supervision in order that the amount of exercise, as well as the food and medication, may be regulated according to the needs and the condition of the patient.

Instead of large closed sanitaria I have long been convinced that the outdoor treatment of tuberculosis as represented by tent life, so arranged as to give every comfort, and every facility that might be obtained in the best equipped closed sanitarium would be the means of saving a far larger proportion of our tubercular patients. The best results will be obtained in that climate that will permit of sleeping in a tent the year round. We should preferably select a climate with sufficient altitude, with dryness, uniformity of temperature, and of sufficient mildness to permit of a practically outdoor life night and day during the whole year. Many such localities can be found in New Mexico and among the foothills of Arizona. The climate of Colorado is too rigorous for an outdoor life during the winter season, but many patients sleep in tents here from the early summer until October, and some even as late as December, with the greatest benefit. The winters of Colorado are too severe for the majority of tubercular cases and the summers of New Mexico and Arizona are too hot and uncomfortable for the best welfare of these cases unless they flee from the arid plains to the mountains during this season. I am convinced that the best results are obtained by shifting these patients about, allowing them to take up their residence and outdoor life in Colorado during the summer season and permitting them to spend the winters in the same manner in Arizona or New Mexico.

A CORK NASAL SPLINT.

HAROLD WILSON, M.D.
DETROIT.

The ordinary Asch or Mayer hard rubber splint used after operations on the nasal septum is by no means a comfortable thing to wear. Its anterior lower edge projects conspicuously,



A. **The splint.** *B.* **Diagrammatic section of nose, showing splint in place. Observe the angle (140 degrees), which the anterior face of splint makes with the nasal floor.**

while its upper edge, by its constant pressure, generally makes the tip of the nose very tender and painful. Some metallic splints I have seen are cleverly contrived, but the patient is unpleasantly conscious of their weight, and I am not sure but they have a tendency to fall out of the nose. Cork seems to offer, by its lightness and elasticity, some decided advantages, and I have made and used some splints of this material which have proved very satisfactory. The surgeon may make them for himself, with the aid of a sharp knife, a file and some sandpaper. A hole is bored through a piece of cork of proper size by means of a perforator, and the splint is shaped to suit the needs of the individual case. After the splint is shaped, it is dropped into hot melted paraffin, which both sterilizes it and fills up the numerous inequalities in its surface, so that it does not absorb the nasal secretions and its cleansing is easy. It will be noticed by the figure that the splint, when in place, is completely within the nasal cavity. Owing to this, as well as to its color, it may be worn without being conspicuous. Moreover, its lightness makes it very comfortable for the patient, and the tip of the nose does not become sore from pressure.

32 West Adams Avenue.

COMPASSION and timidity are mistaken kindness at the first dressing of the ordinary fracture of the lower end of the radius.—Roberts.

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THE INTERRELATION OF CELLS AND ORGANS.

Studies of the typical internal secretions of glands, and of the career of foodstuffs in the many changes they undergo before completing the round of metabolism, have made general the knowledge of the interdependence of the organs, and for that matter of the cells, on each other. It is because of this interdependence that a failure on the part of one group of cells often leads to changes in a remote group, the results of which may overshadow the results from the original lesions. Likewise, the "vicious circle" may be developed by the failure of one sort of metabolic change throwing an entirely different but dependent process out of action, which in turn interferes with the already abnormal process that first became disordered. Such examples of interdependence are rather obscure and indefinite to serve as illustrations of an important principle, and perhaps more simple and interesting examples are furnished in the case of secretions that are by themselves inactive and that require another secretion to render them capable of performing the functions for which they are intended. Pepsin is a case in point, and a familiar one. By itself it is perfectly inert, and will not attack proteids in the slightest degree; but combined with another secretion of the gastric mucosa, hydrochloric acid, which is as characteristic a secretion of that organ as the pepsin itself, the "pepsin-hydrochloric-acid" so formed performs the digestive functions of the stomach. Here we have to do with two secretions produced by one organ which have no function alone, but must be combined to produce the most characteristic effect of that organ. More remarkable, even, is the case of one organ forming the substance necessary for the completion of an active secretion of another organ, but this relation is undoubtedly true of the pancreas, the spleen and the intestinal mucosa.

Many years ago Schiff corroborated the observations of earlier experimenters that the extract of the pancreas of fasting animals does not have much if any power of digesting proteids, although just as capable of digesting starches and splitting fats as in feeding animals. But the extract of a pancreas removed while gastric digestion is at its height will be found possessed of a considerable degree of proteolytic power. Schiff connected this increased tryptic activity of the pancreas with the synchronous enlargement of the spleen, and by experiment soon found that splenectomy prevented the development of tryptic activity even during digestion; the same effect was obtained by preventing the spleen from dilating as it normally does during digestion. More recently this important work has received delayed attention, and it has been corroborated in full as well as amplified. L. B. Mendel and L. F. Rettger[1] have found that while extracts of the spleen, or defibrinated blood from the splenic vein increase the proteolytic power of the pancreas, this power is lost by boiling the extract. This, of course, suggests that the active substance may be an enzyme, an idea which is supported by the observation that the alcoholic precipitate of active splenic extract contains the substance in a condition soluble in water, a behavior usual with enzymes. So it may be permissible for us to ascribe to the spleen a direct part in digestion, consisting of the production of an enzyme or similar body that converts the inactive "trypsinogen" of the pancreas into trypsin, this activating agent being discharged from the spleen during the congestion that accompanies gastric digestion.

But of how much importance is this function, interesting as it is, as a disclosure of one of the "mysteries of the spleen?" No particular digestive disturbance has been observed after splenectomy in man, and the more systematic studies in lower animals have shown that the intestinal proteolysis is undisturbed after removal of the spleen. Even in dogs, whose stomach has been isolated from the alimentary tract after splenectomy, thus leaving all of the digestion to the intestines without aid of stomach or pancreas, the digestion of meat is accomplished quite satisfactorily. How does the inert trypsinogen of the pancreas become transformed into trypsin in this case? The workers in Pawlow's laboratory in Russia, among many other valuable contributions to our knowledge of digestion of foods, have determined the presence in the intestinal juice and in extracts of the intestinal mucosa of a substance with properties that indicate that it is an enzyme, which has much the same effect on inactive fresh extracts of the pancreas as do the extracts of the spleen. This substance they have called *enterokinase*.[2] As a matter of fact, this intestinal energizer of the proteolytic enzyme of pancreatic juice seems to be much more active than the splenic extracts, and probably plays a more important part in normal digestion. We find, therefore, that the pancreatic trypsinogen is made active in the gland itself by substances brought to the gland in the blood from the spleen, and also that any inert trypsinogen that passes into the intestine is there activated by the enterokinase. The value of this arrangement seems to depend on the fact that the fat-splitting and starch-digesting enzymes of the pancreatic juice are destroyed very readily by the pro-

1. American Journal of Physiology, 1902, vii, 387.

2. P. Borissof presents a review of the work in Pawlow's laboratories in International Clinics, 1902, 12th series, vols. ii and iii, 274 and 247. An English translation, by W. H. Thompson, of Pawlow's Lectures on the Digestive Glands, has just been issued by Lippincott. It should be read by those who wish to appreciate the character of the experimental work that is being done in the study of the physiology of digestion.

teid-splitting enzyme, so that if the pancreatic juice were actively proteolytic from the start it would not accomplish much digestion of the other varieties of food-stuffs. Now the Russians have shown that on a meat diet the fresh pancreatic juice contains nearly all of its trypsin in the active form, probably made so by intra-pancreatic action of the "enzyme" from the spleen; whereas, with a bread diet, in which the spleen becomes much less congested, the juice, as elaborated into the pancreatic ducts, contains much more of the inactive trypsinogen, and is correspondingly less actively proteolytic. This gives the starch-digesting and fat-splitting enzymes an opportunity to act for a while without injury by the trypsin, since it requires some little time for the enterokinase to be secreted and to convert the trypsinogen into trypsin. This complicated arrangement produces, therefore, an ideal result; an actively proteolytic fluid with proteid diet, and an actively amylolytic and lipolytic juice with a starchy or fatty diet.

Interesting and valuable as these results are, it may well be that their greatest importance is to be sought in future researches that they may incite. May it not be that many of the organs whose functions are still unknown have a very important purpose to perform in combining with the output of some other organ? Such a function could have been readily overlooked in the lack of any facts calling attention to this possibility. May not even the bothersome vermiform appendix have its own particular effect on the secretions of the rest of the alimentary canal, and be like the splenic function, valuable but not essential, and so not detected after simple appendectomy? A host of other possibilities arise to mind quickly enough, which might lead to studies of correlated action in numbers magnified by combinations and permutations toward the infinite.

SETTLEMENT WORK AND HYGIENE.

Under the name of settlement work there has come in most of our large cities in recent years an organized effort to bring at least some of the better educated classes, mostly young university men and women, into personal contact with the very poor and the ignorant in the tenement-house districts. Modern great city life, especially in this country, has brought almost absolute separation of the classes. In certain of the great cities abroad it still sometimes happens that the houses facing on the street and those on the courtyard of a square may shelter widely-separated members of the social scale, but this is practically never the case in the United States. This separation deprives the poor and ignorant of one of their most effective influences for cleanliness and hygienic living, the example of those whom they look up to and whom they respect. This is unfortunate, since example, especially in such matters, counts for so much more than precept. Any means, then, that promises to undo, even to a slight extent, the evil of present conditions should be heartily welcomed.

We have come to realize of late years that there is a much more intimate relation between the health of the poor and of the well-to-do in a large city than has been hitherto thought. The tenement can not be kept from affecting the life of the mansion. Disease is not merely the consequence of overcrowding and dirt, but it may be conveyed even to those in the best sanitary circumstances if once allowed to gain a foothold that intensifies its original virulence. Disease germs are much less frequently conveyed through the air than used to be imagined, but modes of transmission are sure not to be lacking if once favorable conditions for the multiplication of specific micro-organisms are established. There is an inevitable solidarity between the different parts of a city in the matter of health and those who are interested in humanitarian progress thoroughly appreciate this fact.

There is every reason, then, for physicians to take an active interest in settlement work, and especially to see that those who devote themselves to this social uplifting shall be properly instructed and possessed of rational ideas on questions of hygiene and sanitation. It not infrequently happens that those whose characters prompt them to such altruistic occupations are not entirely in accord with modern scientific medical notions. The anti-vivisectionists, anti-vaccinationists, and many other "antis" find in such work a favorable opportunity for the propagation of their ideas. Needless to say, they may in this way do great harm. If medical students looking for congenial occupation during vacations can be directed to this kind of work in addition to attendance at dispensaries, there is undoubtedly a great field for good. Physicians should realize the possibilities there are in this matter, now that settlement work is becoming a recognized institution of great city life. We have noted with approval that in more than one of the large cities women physicians have interested themselves in such work, and are even the heads of institutions. Male physicians are not so prominent, and it would almost seem that an opportunity for the noblest professional work, one calculated to be of supreme philanthropic importance, is being neglected.

SPLENIC ANEMIA.

The condition of enlargement of the spleen with anemia has attracted a good deal of attention within recent years. It has been given a number of different names and no doubt different affections have been described under the same name. Despite the careful study to which the disorder has been subjected there is no unanimity of opinion as to its nature and origin. Osler defines the affection as a special malady of unknown etiology, characterized by a chronic course, enlargement of the spleen, anemia of a secondary type, a marked tendency to hemorrhage from the stomach and a liability to be associated in the late stages with jaundice, cirrhosis of the liver and ascites. He considers it probable that the conditions described separately in the lit-

erature as primitive splenomegaly, splenic anemia and splenomegalic cirrhosis of the liver or Banti's disease, are stages of one and the same malady.

In a recent paper on the subject, Osler[1] reports a group of cases and gives the results of their analysis, together with that of a series of cases communicated to him by his fellow-members of the Association of American Physicians, and concluding with a summary of the clinical features of the disease. Of 15 cases under Osler's observation, 13 occurred in males and 2 in females. All were in adults, chiefly young adults; in only one had the disease begun in childhood. From the etiologic standpoint there was in five a history of malarial fever earlier in life. Heredity played no part in any of the cases, although a familial relation was noted in some cases reported by others. The peculiar characteristic of the disorder is its extraordinary chronicity, some of the cases lasting more than 12 years and the duration in two of the reported cases being 25 years.

The special feature of the enlarged spleen of chronic splenic anemia is its great size—being greater than in any other disease, with the exception, perhaps, of leukemia. Hematemesis is a remarkable symptom of the disorder, being present in a considerable percentage of the cases and attaining large proportions at times. It may continue throughout many years, and it is believed to be due in a large number of cases to conditions associated with enlargement of the spleen. Hemorrhage from other sources is much less frequent. Epistaxis may recur at intervals; retinal hemorrhages, bleeding from the gums, menorrhagia and hematuria have been recorded, and purpuric attacks may occur. The state of the blood is peculiar, there being but a slight diminution in the number of red corpuscles, with a low percentage of hemoglobin and also a small number of leucocytes. Pigmentation of the skin is common in cases of long standing, often assuming a diffuse bronzing, although at times it appears as a steel-gray staining, while in some it has been patchy and associated with areas of leukoderma. In most cases there are no symptoms referable to the liver; in a few ascites is present; while in others symptoms suggestive of cirrhosis of the liver dominate the clinical picture. Jaundice has been observed occasionally. Often the liver is normal in size; at times it is enlarged; rarely it is diminished in size. The morbid anatomy of the affection comprises a fibrosis and hyperplasia with atrophy of the splenic pulp and a hyaline degeneration of the Malpighian bodies; and also displacement of the normal texture by fibrous tissue and large endothelial cells with clear protoplasm containing two or more nuclei, and among them giant cells.

The disorder appears to be dependent on a chronic toxic rather than an infective process, but the character and the source of the poison are as yet undiscovered. The only known successful treatment consists in removal of the enlarged spleen.

1. American Journal of the Medical Sciences, November, 1902, p. 751.

WELTMERISM AGAIN.

Some time ago the Postmaster General excluded the Weltmer magnetic healing concern of Nevada, Missouri, from postal privileges and an appeal to the courts sustained the order. The United States Supreme Court has now overruled the decision of the lower tribunals, thus restoring to the pretenders the use of the mails. According to the press reports, which are all we have at present, the decision makes a general ruling as regards the rights of medical healing pretenders to the use of the mails. It says, as reported, in effect that however extravagant the claims that are made no one can set the limit where the statutes are violated. "There is no exact standard of absolute truth by which to prove the assertion false and a fraud."

This seems to us rather a broad statement, for there must be some difference between the truth and a lie. As we recollect it, this Weltmer concern not only claimed to cure by correspondence, but also had a pretended system of aiding its dupes in money-getting by absent treatment or influence, or something of that sort. The postal authorities were convinced of the fraudulent nature of the business by the absolute lack of correspondence between Weltmer's claims and the amount of business done. It was an absolute impossibility for a man to give any individual attention to the cases represented in his correspondence, which kept some eighty typewriters busy, without any relation whatever to the question of the truth or falsity of so-called magnetic healing. The case was not improved for him by the alleged fact that while his typewriters were copying off the forms to send to his dupes he was refreshing himself in Colorado and could have no knowledge of even the names of the 25,000 or more whose communications with him were stopped. We do not know how the case was presented to the court, and it may be that this aspect was not made very prominent, but if it was the decision and remarks on magnetic healing and its possible validity seem to be rather gratuitous.

We would ordinarily hesitate in criticising a decision of the Supreme Court, but this one appears to us to be a judicial blunder. Judges and other laymen often give out queer opinions on medical matters, but good business sense ought to be enough to make clear the fraudulency of such a pretender as Weltmer. The opinion, however, does not seem to be final as to all points, and it may be only a temporary victory for the concern, but what is published of this extraordinary decision does not commend itself, even to the editors of the leading lay journals of the country as we see by their editorial comments on the case.

A NEW FIELD FOR EDDYISM.

Weltmer does not seem to be the only one who claims power to make rich as well as to heal. We read of a certain Prof. William Windsor of the "International College of Science" of Boston, who goes around lectur-

ing on "vitosophy," a science that not only can cure all diseases except those which require surgical aid, but will also make those who master it rich and happy. Eddyism and Dowieism will have now to add worldly wealth to their other inducements or they will be behind the times. "How to make one rich" would be a very good text for either Dowie or Mrs. Eddy—they can speak from experience—but how about the many?

MILK AND PUBLIC HEALTH.

The subject of milk in its relations to public health is very thoroughly discussed in a recent report by Dr. George M. Kober and published as Senate Document No. 441. The larger part of the work is taken up by the various appendices, which give the composition of normal milk and its legitimate variations, its adulteration with preservatives, etc., the methods of milk inspection and examination, chemical and bacteriologic; the details of sanitary dairy management and other matters that are of interest in regard to this most important food product. There is also an exhaustive bibliography. The subject of abnormal milk is fully treated, including a discussion of the living question of the day—the transmission of bovine tuberculosis by milk. The author still considers this question to some degree an open one, requiring further and careful investigation before we can speak positively as to the full extent of the danger from this source. He agrees, however, that there is already sufficient evidence to warrant all reasonable precautions. The document concludes with a tabulated statement of disease epidemics, typhoid, scarlatina and diphtheria, that have been credited to the milk supply, and a good index. It is the most convenient and complete monograph of its subject that we have yet seen and deserves a wide circulation. We are not sure how generally accessible it is or will be to the general public as a government document, and its republication, with such additions and revision as the studies of the subject may make necessary, might be advisable.

THE SCIENTIFIC EXHIBIT.

We print this week[1] the report of the Committee on Pathologic Exhibit at the Saratoga meeting. This exhibit has now been a feature of the annual sessions of the American Medical Association for three successive years and has attracted a great deal of attention. Being in the beginning stage it naturally has been open to some criticism. That it has lacked definiteness of purpose, and that the best possible use of the material has not been had, is not to be wondered at. Now the scope of the exhibit has been broadened, as is shown by the change of title from Pathologic Exhibit to Scientific Exhibit, and at the last session of the House of Delegates arranged for co-operation on the part of the sections with the committee arranging the exhibit. Would not the value of the exhibit be materially increased if the secretaries of the sections could secure for the exhibit all specimens that are to be used, or that could be used, for the illustration of the papers that are to be read in their sections? Furthermore, would it not add to the general interest if specimens illustrating present or past research could be shown in considerable numbers in this exhibit? Last year the Section on Ophthalmology had a display of ophthalmoscopes, showing the various steps in the evolution of this instrument. No better place for such a display could be conceived than this exhibit. Would it not be a good idea to institute demonstrations of specimens by men who are especially capable of conducting such demonstrations? For example, suppose that during each afternoon certain men be selected to talk on the specimens that they might care to demonstrate. Thus, the Section on Ophthalmology might ask some scientist to talk on the eye specimens that are on exhibit. That on Dermatology might ask for a similar demonstration by some distinguished skin specialist. This plan would, on the one hand, materially increase the usefulness of the exhibit, while, on the other, it would tend to secure a high grade of specimens.

1. See page 1404.

THE PLAGUE IN CALIFORNIA.

A certain portion of the California press is still raving and maintaining that there is and has been no bubonic plague in that state; this, too, in spite of the convincing evidence that seems at last to have silenced the sole local medical journal hitherto advocating their views. They do not appear to be aware that the country generally does not accept the testimony of such sanitary experts as Governor Gage, Mayor Schmitz and bacteriologist Mouser against that of all other authorities in the country and the almost unanimous opinion expressed by the California State Medical Society. If this course is kept up we will probably see some states quarantining again California—indeed, that is already threatened. The country does not fear the plague so much as long as it knows that the city health authorities of San Francisco are still in power and are permitted to do their duty. But this is not a full assurance of safety so long as it is certain that the state authorities will not cooperate but will continue their policy of the past, denying the existence of the pest and doing nothing to curb it. There is no certainty that it does not exist unrecognized elsewhere in the state in places where there are no adequate health regulations or sanitary officials. The Chinese are numerous throughout California and are very secretive in such matters. Their success in hiding plague cases was shown in Hong Kong, where, in spite of all official vigilance, they were often only revealed after death when the bodies were thrown into the streets. What may happen in remote Chinese settlements on the Pacific coast no one knows. Our hopes rest on the incoming administration, which we feel assured will not follow the example of its predecessor. With state and city authorities of the coast alike alive to the needs of the situation, the rest of the country will feel grateful relief from the unpleasant suspense that now exists. While THE JOURNAL has discontinued its special detailed reports of plague cases for some time, they have continued to occur latterly at the rate of at least eight or ten a month, and seem to be increasing. In the meantime the attitude of some of the citizens and

officials is more interesting psychologically than it is satisfactory in other respects. It is not pleasant to think of bubonic plague becoming endemic, even if it does not become epidemic in this country.

Medical News.

COLORADO.

Personal.—Dr. W. C. Foster, Pueblo, as the result of a competitive examination, has been appointed city physician of Manila, P. I.

Without License.—"Dr." J. C. Maroney, Denver, was tried, November 18, on the charge of practicing medicine without a license. He was found guilty and sentenced to pay a fine of $200 and to ten days' imprisonment in the county jail. The jail sentence was waived on payment of the fine.

New Home for Consumptives.—The Mrs. Charles L. Adams Memorial Home, Denver, built at a cost of $50,000 by Mr. Charles Adams of New York, in memory of his wife, and intended for consumptives of limited means, was dedicated, November 26, with appropriate ceremonies, by Bishop Olmsted of Colorado. The institution has accommodation for forty patients.

Death and Disease in October.—During the month 802 deaths and 27 stillbirths were reported, an annual death rate of 16.26 per 1000. Diphtheria caused 18 deaths, scarlet fever 4, smallpox 1, and typhoid fever 83. The cases of diphtheria reported numbered 107, of scarlet fever 112, of smallpox 25, and of typhoid fever 655. Compared with the previous month the reports show an increase of 38 cases of diphtheria, 52 cases of scarlet fever, 3 cases of smallpox and 13 cases of typhoid fever.

An Ethical Question.—At the bi-monthly meeting of the Pueblo County Medical Society, held November 18, questions of professional ethics were discussed, and the action of Dr. Richard W. Corwin in allowing his picture to appear in the daily papers in connection with his recent performance of the Lorenz operation for the cure of congenital hip dislocation was given consideration. The local newspapers say that while no resolution was passed on the subject members of the society, with some exceptions, expressed their disapproval of this sort of publicity.

ILLINOIS.

Expectoration Prohibited on Sidewalks.—A resolution was passed by the Springfield Board of Health, November 11, prohibiting expectoration on sidewalks and in public places.

Hospital Fireproof.—The new Rockford Hospital is to be made fireproof, and in connection with the hospital a nurses' home will be erected. The total cost of the building will be $53,000.

St. Charles Hospital Open.—The new St. Charles Hospital was dedicated by Bishop Muldoon, November 25. It was founded by the Franciscan Sisters of Joliet and represents an outlay of $50,000. It will soon be ready to receive patients.

Neely Appointed.—President Hanberg of the county board, on November 24, appointed Dr. John R. Neely superintendent of the county institutions at Dunning. The appointment is to take effect at once. Dr. Neely has been medical director of the institution for some time.

Personal.—Dr. Harry R. Lemen, Upper Alton, has returned home after three years in the United States service in the Philippine Islands.——Drs. M. D. Empson, Hartford, and James W. Armstrong, Centralia, were elected vice-presidents of the Southern Illinois Medical Association at its recent meeting.

Public Advertisement Undesirable.—A committee of physicians representing the Quincy and Adams county medical societies, called on the newspapers of Quincy, November 18, and requested them not to publish the names of physicians connected with cases which from day to day come up, and in which the public is interested.

Chicago.

Personal.—Dr. and Mrs. G. Frank Lydston have returned from the Orient.

Degree for Dr. Lorenz.—On November 28, Northwestern University conferred the degree of LL.D. on Dr. Adolf Lorenz of Vienna.

Will Protect Its Members.—The Chicago Medical Society, acting on the recommendation of a committee, has decided that hereafter all suits for malpractice brought against its members will be contested by counsel provided by the society. Under the proposed plan a medicolegal committee and a medicolegal fund will be established.

Importance of Diagnosis in Diphtheria.—From the Bulletin of the Chicago Health Department for the week ending November 22 we quote the following:

Investigations of the deaths from diphtheria show that many of them were due to a deceptive type of the disease. Parents and some physicians even have been deceived when the most malignant form of the disease was present and death has ensued because the administration of antitoxin was thereby delayed. All persons having the care of children should keep in mind that the disease may be in the back part of the nose or in the windpipe, as well as in the throat, where the membrane can be seen. There may be little or no pain or fever and on the second day the child may seem better. The poison of the disease often causes dulness and stupor. Hoarseness and difficult breathing indicate diphtheria of the windpipe. The true nature of the disease can only be learned by taking a culture, and, when there are so many of these cases present as now, this should never be omitted. Antitoxin should be administered at once in every suspicious throat case; it can do no possible harm in any event; it will certainly prevent death from diphtheria if used within the first forty-eight hours.

The laboratory examinations show some decrease in the presence of the diphtheria bacillus; it was found in less than 50 per cent. of the cultures examined. The week before it was present in more than 60 per cent. of the cultures, but it was found more frequently last week in cases not suspected to be diphtheria.

SMALLPOX.

There were six cases of smallpox admitted to the isolation hospital during the week—two from Evanston direct, three children attending a parochial school in Evanston but living near the northern city limits, and a traveling man who contracted the disease probably in Milwaukee. None of these had ever been vaccinated. At the close of the week there were 11 cases remaining in the isolation hospital, 7 having been discharged recovered, and no deaths.

LOW NOVEMBER MORTALITY.

Notwithstanding the threatening indications of a high death-rate during the early part of the month, November bids fair to maintain its position of lowest monthly death-rate of the year. The 1,437 deaths reported during the first twenty-two days represent an annual rate of 13.09 per 1,000 of population. This is nearly 20 per cent. less than the average November rate during the decade 1881-1890, and 9.1 per cent. less than the average November rate during the decade 1891-1900.

INDIANA.

Deaths From Violence.—Of the 2559 deaths in Indiana in October, 146, or about 5 per cent., were due to violence. Railroad and street car accidents caused the deaths of 32 persons, of whom 26 were males and 6 females. Of the 146, 118 were accidental and 26 were suicides, of which 21 were males and 5 females. There were 8 murders, 7 were accidentally poisoned, and 7 drowned, 4 killed by machinery, 17 by burns and scalds, and 11 died of gunshot wounds. Five persons died of strangulation from food. Six persons chose hanging, 7 shooting, 3 carbolic acid, 2 morphin, and 2 arsenic as a means of committing suicide, and paris green, rat poison, strangulation and prussic acid each killed one.

MASSACHUSETTS.

Endows Chair of Comparative Anatomy.—James Stillman, president of the National City Bank, New York, has presented $100,000 to Harvard University for the endowment of a professorship in comparative anatomy.

Practicing Without License.—William L. Williamson, Taunton, who claims that he has been practicing in that city for ten years, and that he has been in practice for more than thirty years, has been brought before the District Court charged with practicing medicine without being qualified under the Massachusetts law. The name of this individual is not to be found in the medical directories.

Harvard Tuition Fees Advanced.—The corporation of the Harvard Medical School has approved the vote of the faculty to raise the tuition for the fourth year from $100 to $200, making the fees uniform through the four years. When only three years were required for a degree, the fourth year tuition was made less to encourage students to take it, but now that the requirements are for four years of study, the change is made in the interests of uniformity.

NEW YORK.

Personal.—Dr. John F. Fitz Gerald, superintendent of the Rome State Custodial Asylum, has resigned to accept the position of general medical superintendent of the Kings County General Hospitals, four in number, in Brooklyn.——Dr. John D. Curran of the staff of the Binghamton State Hospital, has resigned, and will go into private practice.

Status of Medical Examiners Decided.—By a ruling of the State Civil Service Commission, the positions of county medical examiner and assistant medical examiner are exempt from the civil service law. The salaries due to Medical Examiner

Danser and Assistant Medical Examiner Howland of Erie County, which have been held back awaiting the decision, have accordingly paid them from the date of their appointment.

Smallpox Emergency Fund.—The Board of Estimate and Apportionment of Rochester has adopted resolutions appropriating another smallpox emergency fund of $25,000. The $50,000 fund appropriated some time ago is exhausted. Of the new fund about $10,000 is to be applied to building the new hospital and the remainder is to be used for the care of smallpox patients. It is expected that the additional appropriation will be sufficient at least for the remainder of the year.

New York City.

Physician Assaulted.—Dr. Simon Clug, while on his way home at 3 o'clock in the morning, was assaulted by three men, one of whom was captured and identified.

Generous Gift to Hebrew Charity.—The six daughters of the late Leonard Lewisohn have donated to the Hebrew Sheltering Guardian Society the sum of $125,000, $50,000 being given outright, and the balance on the condition that the society shall secure a similar amount to complete the building fund within a year. The entire amount needed is $400,000, of which $110,000 have been already subscribed.

The New French Hospital.—The ceremony of laying the cornerstone of the new French Hospital took place, November 18, in the presence of many distinguished persons, including the French ambassador, M. Jules Cambon. The new edifice is to be erected a little west of the present site of the hospital. The new building will have 150 ward beds and some private rooms, and while intended principally for French people, the hospital is non-sectarian and all nationalities will be admitted.

Throat Department Closed.—The directors of this institution have finally decided to close the throat department of the New York Eye and Ear Infirmary, which has been in existence for 28 years. Last year alone it treated 9600 new patients. A limited number of the old throat patients will continue to receive treatment, but retrenchment has been found necessary because, it is said, of the enormous crowds of school children brought daily to the infirmary for the treatment of trachoma. To offset the unpleasant rumors that have been abroad regarding disagreements with the physicians in the throat department, the directors reappointed the whole staff for another year.

Preparing for the Lorenz Visit.—Up to date, several hundred applications for treatment by Dr. Lorenz have been recorded at the Cornell Medical College and at the Hospital for Ruptured and Crippled, and to facilitate the work of selection a large number of the cases have been examined with the *x*-ray. Incidentally this excitement among the deformed persons in the community has been the means of bringing to light a surprisingly large number of cripples, and this has led Dr. Newton M. Shaffer, and others, to start a movement to ask the next legislature to appropriate $100,000 for a new and more capacious hospital for the care of such children. The present state hospital for this purpose is situated at Tarrytown, and accommodates only 25 patients. Dr. Lorenz is expected to reach this city December 6.

An Unlicensed Drug Clerk.—An unlicensed junior clerk in a drug store on Ninth Avenue recently sold a mixture of castor oil and almond oil to some children. They returned shortly afterward, complaining that their grandmother said the medicine was not right, as she could smell no almond oil in it. The clerk said he would fix it, and evidently did so by adding a liberal quantity of oil of bitter almond, for shortly afterward the grandmother and one child were dead from cyanid poisoning. The proprietor of the store, when asked by the coroner why he allowed so inexperienced a clerk to handle poisons, replied as follows: "He was not allowed to fill prescriptions. A mixture of castor oil and almond oil is not a prescription. He had as much right to sell it as he had to sell patent medicine."

Opposition to Coroners.—At the last meeting of the New York County Medical Association, a resolution was introduced by Dr. Harry R. Purdy, and unanimously adopted, directing the appointment of a committee to investigate the question of abolishing the archaic office of coroner. The committee appointed consists of Dr. Stephen Smith, chairman, with Drs. E. Eliot Harris and Harry R. Purdy as his associates. This committee will co-operate with the committee on legislation of the state association, and it is probable that the county medical society will appoint a similar committee. It is the intention to introduce into the next legislature a bill abolishing the office of coroner in New York City, giving the medical part of the work to some officer chosen by the president of the board of health, while the judicial part of the work of the coroner's office will fall on the judges and magistrates. The plan is similar to that which has been in successful operation for several years in Massachusetts.

Buffalo.

Inspection of Immigrants.—Dr. E. D. Bingham has been appointed medical inspector of the port of Niagara. The United States is evidently determined that no diseased immigrants shall enter the country. Eight immigrants were sent back yesterday. Trachoma is the principal disease brought into the United States by the immigrants, most of the sufferers being Italians.

Recommendations Anent County Hospital.—Eben P. Dorr, inspector for the State Board of Charities, has made the following recommendations concerning the Erie County Hospital of Buffalo: Exclusive and modern ambulance service; new nurses' home and conversion of the present house into a venereal ward; cottage for nursery purposes (children should be removed from the main hospital); elevator for hospital; sterilizing equipment for hospital; large ventilating shafts into hospital water closets; shower baths for women; better equipped hospital operating room; watchman's time detector; wall racks or reels for firehose; more convenient clothing rooms for inmates of hospital, and more commodious quarters for medical superintendent and family.

PENNSYLVANIA.

Typhoid Fever in Reading.—There are several hundred cases of typhoid fever in Reading. Supplying pure water by the gallon to householders is said to be quite an industry. The hospitals report a scarcity of nurses.

Cornerstone Laid.—The cornerstone of the new Lancaster General Hospital was laid on November 23, with masonic ceremonies. The new building is to cost $60,000. The institution is nine years old, and treated 403 patients last year. An annual appropriation of $5000 toward its support is received from the state.

The State Board of Public Charities was recently in session for several days in Philadelphia considering the requests from the hospitals of the eastern section of the state for state aid. At a meeting soon to be held in Harrisburg, requests from hospitals of the western section of the state will be heard. The board makes its recommendations to the legislature next January.

The State Board of Health met in Harrisburg, November 20. The annual report of Dr. Benjamin Lee, secretary, showed that smallpox exists in 87 cities, towns and villages of the state, and that the increase in the number of cases since August 1 has exceeded 50 per cent. monthly. Most of the cases are in the western and southern sections. Dr. J. H. McClelland of Pittsburg was reappointed chairman of the legislative committee of the board, with instructions to make every effort to secure an appropriation of $50,000 by the next legislature as an emergency fund, to be used by the board as needed to fight contagious diseases. Such a provision formerly existed, but for the past two years the legislature has failed to make an appropriation. Consequently, the board was almost helpless to respond to the appeals for aid in the smallpox epidemic of last winter. Facing the possibility of an epidemic this winter, the board urges the necessity and economy of such an appropriation. Dr. Samuel T. Davis, Lancaster, president of the board, was elected delegate to the American Public Health Association.

TENNESSEE.

Personal.—Dr. James A. Albright, Nashville, was re-elected secretary and executive officer of the Tennessee State Board of Health, at the meeting of that body, October 7.——Dr. Edar L. Gleaves, Gallatin, health officer of Sumner County, has resigned, and will locate in Olinda.——Dr. Alfred S. Horsley, Knoxville, has been appointed surgeon-in-chief of the McDonald camp in Guatemala.——Dr. William S. De Golia succeeds Dr. Leopold H. Schwerin as surgeon for the Tennessee Central Railway, with headquarters at Crossville.——Dr. Hampton L. Fancher, Isoline, has moved to Orme.

Hospital Staff Appointed.—The newly-appointed staff of St. Thomas' Hospital, Nashville, is as follows: Drs. Charles Brower, Adam G. Nichol, S. McPheeters Glasgow, Richard A. Barr, Worcester A. Bryan, John R. Buist, Lucius E. Burch, John A. Gaines, Perry Bromberg, W. Frank Glenn, James W. Handly, James Brew, William E. Buist, Lynn B. Graddy, Marvin M. Cullom, George H. Price, Hilliard Wood, Edwin G. Wood, John A. Witherspoon, William Bailey, Robert O. Tucker,

Sidney S. Crockett, John T. Altman, James M. Coyle, Owen H. Wilson, Matthew G. Buckner, Samuel M. Bloomstein, Thomas Weaver, A. B. Cooke, Larkin Smith, Louis Leroy and James M. King.

Medical Schools Open.—The medical department of the University of Nashville opened October 1. Dr. William G. Ewing, dean, delivered the opening address. The freshman class numbered 125.——The medical department of Vanderbilt University, Nashville, opened, October 1, with addresses by Rev. W. M. Anderson, Chancellor Kirkland, and the dean, Dr. William L. Dudley.——The twenty-sixth year of the medical department of the University of Tennessee, Nashville, opened, October 1, with an address by Dr. J. Bunyon Stephens, one of the founders. Dr. Paul F. Eve presided.——Memphis Hospital Medical College began its fall session, November 3, in its new building with an enrolment of more than 700.—Chattanooga Medical College opened, October 7, with an enrolment of about 150 students.

UTAH.

Personal.—Dr. George T. Odell, Salt Lake City, has been appointed assistant physician of Salt Lake County.

Fire in Hospital.—On November 11, fire broke out in the Ogden General Hospital, but the damage to the building was not extensive.

Resolutions Regarding Dr. Verbryck.—The Salt Lake County Medical Association has passed resolutions of condolence regarding the death of Dr. George G. Verbryck.

Hypnotic Doctor Fined.—In the case of C. W. Pearce, Ogden, who claimed to be able to cure cancer and other ailments by hypnotism, the accused pleaded guilty and was fined one dollar and given time to get out of the state.

Smallpox Epidemic Feared.—There have been more than one hundred cases of smallpox in and around American Fork, about 10 per cent. of which were severe. Quarantine has been established, but it is claimed that the authorities have been unable to enforce it strictly. It is feared that the disease will be spread over the state.

VIRGINIA.

Medical College Attendance.—The enrolment at the Medical College of Virginia, Richmond, thus far is 250, and that of the University College of Medicine, in the same city, 274.

Personal.—Dr. Lemuel C. Shepard has succeeded Dr. J. Jett McCormick as city bacteriologist of Norfolk.——Dr. John W. Brown, Hampton, recently underwent an operation for appendicitis.

Richmond Hospital for Colored People.—A new corporation, to be known as the Richmond Hospital Association, has been organized, with the following officers: Dr. Richard F. Tancil, president; Dr. Harrison L. Harris, vice-president; Dr. Oswald B. H. Bowser, secretary, and Dr. John Meriweather, treasurer. It is the purpose of the incorporators to erect a large hospital in the suburbs of Richmond for the use of colored patients.

WASHINGTON.

Personal.—Dr. H. P. Miller, Fremont, was recently crushed between a fence and an electric car, and sustained a fracture of the leg.——Dr. Howard R. Keylor, Walla Walla, has been appointed physician at the state penitentiary, vice Dr. James F. Cropp.

Deaths in Washington.—In October there were recorded 406 deaths in the state, of which 246 were males and 160 females. Kings County had 102 deaths, Pierce County 49, and Spokane County 32. Accident caused 53 deaths, homicide 5, and suicide 11.

Nuisances and Communicable Diseases.—The Spokane County Board of Health has published two excellent pamphlets, one detailing the rules and law governing nuisances and their abatement, and the other, rules governing and means to prevent the spread of communicable diseases.

WISCONSIN.

Leper Dies.—Thomas Nelson, the only leper in Dane County, who had been afflicted with the disease for more than thirty years, died in his cottage at the county poor farm, November 1.

Malpractice Suits.—Frank Koeppl has asked damages of $10,546 against Dr. Walter J. Kelly, for injuries alleged to have been received through the malpractice of the defendant.——Dr. E. Wells Kellogg, Milwaukee, has been sued for damages to the extent of $10,000, for injuries claimed to have been received at the hands of the defendant while under treatment for a swollen wrist.

Personal.—Dr. Hoyt E. Dearholt, Milwaukee, has returned from Europe.——Dr. Oscar Chrysler will succeed Dr. Almon Clarke as surgeon at the Soldiers' Home near Milwaukee, December 31.——Dr. Charles M. Gould, West Superior, has moved to Tucson, Ariz.——Dr. William F. Beutler has returned from his trip abroad.——Dr. Alfred L. Kastner has been appointed assistant surgeon at the Soldiers' Home, vice Dr. A. Kreutzer, resigned.——Dr. Otto Braun, Merrill, has gone abroad for six months of study.——Dr. Arthur T. Holbrook, Milwaukee, has returned from a six months' course of study in Vienna.——Dr. W. I. Griffin, Ashland, has been appointed physician to the La Pointe Indian Agency, vice Dr. E. S. Davidson, deceased.—Dr. John F. Brown, Mazomanie, has been appointed physician to the state penitentiary, vice Dr. Eugene A. Smith, Waupun, resigned.

GENERAL.

A Santa Fe hospital for the Pacific Coast will be built in Los Angeles or San Bernardino, to care for the employes of the Santa Fe Railway.

A recrudescence of cholera is embarrassing the Philippine Commission and the War Department. The water supply of Manila is threatened. The outbreak in Mindinao, however, is not so severe as was at first reported.

Army Surgeon-General's Report.—In the report of the Surgeon-General of the Army for the year ending June 30, on page 45, the death rate from all causes for the year 1901 is incorrectly given as 19.94 per thousand. It should read 13.94 per thousand. The figures are correctly given in Table 1, page 148. The Surgeon-General requests that we make this announcement, as many copies of the report have been issued.

States Want California Plague Conference.—Five state boards of health have adopted a resolution calling on Surgeon-General Wyman of the United States Marine-Hospital and Public Health Service, to assemble a conference of all state health officers to take action toward the prevention of the spread of bubonic plague, known to be in San Francisco. They base their request on the dangerous policy of the California authorities.

Invalids Must Have Certificates.—The passenger agents of the Terminal Lines Association voted unanimously at the meeting at Denver, November 11, for a law requiring every invalid passenger to have a certificate from his physician stating what disease he has before boarding trains. The secretary of the association was instructed to confer with the city, county and state health officials in regard to the form of certificate best adapted for the purpose, and as soon as this is done plans will be laid for putting the new agreement into effect.

Increase in Suicide.—U. S. census reports show, according to an article in the *Spectator*, an insurance publication, an increase in the number of suicides throughout the Union. In fifty of the largest cities the average number of suicides in 1890 was 12 per 100,000 of population; in 1901 it was 16. In the intervening period at no time did the rate fall below 12, and in 1897 and 1898 it rose to 17.73. There is a wide difference in the suicide rates of some of the fifty cities. In San Francisco it was over 49 last year. Taking the average for the entire decade, the rate in St. Louis was 25.7; in Chicago, 23.3; in Hoboken, N. J., 23, and in that part of New York City included in the boroughs of Manhattan and the Bronx, 20.9; while in Trenton the rate was only 5.1, and in Fall River, Mass., 2.9.

Health of Miners Investigated.—The Strike Commission in session at Scranton summoned several physicians to testify as to the health of the miners. Testimony was to the effect that 99 per cent. of mine workers are anemic, and their general condition below par. The ills suffered especially by miners were said to be catarrh, stomach affection, pleurisy, gout, neuralgia, sciatica, lumbago, rheumatism, pneumonia and asthma. Affections of the respiratory tract were believed to result from the inhalation of coal dust, powder smoke and otherwise vitiated air. It was stated that 90 per cent. of those who reach 50 years of age are afflicted with some form of rheumatism; that few live beyond 50 years of age, the average life of a miner being 25 or 30 years. A member of the Central Poor Board of Luzerne County testified that 70 per cent. in one of the almshouses are miners, and that 40 per cent. of these are crippled by accidents at the mines.

CANADA.

Vancouver Hospital Fund.—A gift of $1000, among other contributions, raises the Vancouver General Hospital fund to $14,000.

Appointment.—Dr. Fiset of Quebec has been appointed staff adjutant of the Army Medical Corps of Canada. His office will be at Ottawa.

Smallpox Outbreak.—Fifty cases of smallpox are reported in Kent County, New Brunswick. For some time the affected ones concealed the fact of the outbreak, which allowed its extended spread.

The Academic Palms for Brochu of Quebec.—The French government has decorated Dr. D. Brochu, professor of internal medicine at Laval University and editor-in-chief of the *Bulletin Méd. de Quebec.*

Montreal General Hospital Report.—The quarterly meeting of the Board of Governors of the Montreal General Hospital was held last week. A very interesting report was presented. The hospital seems to be in great financial stress. An anonymous subscription has recently been given to the endowment fund of $3,000, which brings that fund up to $43,500. The report of the medical superintendent showed 743 patients admitted to the wards in the quarter and 8,301 outdoor patients, against 720 inmates and 7,638 outdoor patients for the same quarter in 1901.

Scarlet Fever in Montreal.—The question of the erection of a new contagious diseases hospital for Montreal is again agitating the minds of the people of that city, and the urgent need has been brought forcibly home to them during the past week when the medical health officer reported that the little shack now used as a hospital for infectious diseases contained eighteen patients suffering from scarlet fever. During the past few days the disease seems to be spreading rapidly and new cases are being reported daily. The disease is said to be of a very violent type. There are only 26 beds in the temporary hospital for scarlet fever patients, and the question is what is to be done when the other beds are occupied.

Ontario Asylums.—The Hon. J. R. Stratton, the provincial secretary in the Ontario government under whose department are the asylums of the province, is quoted as alleging that within the past few months five persons were committed to the asylum as insane, the usual certificates being signed by two medical men in each case, and that all these have been returned to their homes, having been declared perfectly sane by the asylum physicians. This casts a reflection on at least ten physicians of the province, and their cases have been taken in hand by Dr. McKinnon of Guelph, a past president of the Ontario Medical Association, whose presidential address before that body two years ago entered largely into the discussion of asylum affairs in this province. It is charged by the provincial secretary that certain parties have been imposing on the province, and that there is good reason to believe that these five persons were sent to the asylum only to relieve their friends or the House of Refuge. Dr. McKinnon points out, if this be true, it is clearly the duty of the provincial secretary to lay information before the discipline committee of the Ontario Medical Council, so that an immediate investigation can be made. Dr. McKinnon then enquires what tribunal decided that these five persons were not insane, how long they were under observation, further stating that it will be interesting to follow up their future lives. Appointments in the Ontario asylum service are said to be almost wholly on political lines, a doctor-politician very often proceeding directly from the hustings or from the party caucus to the responsible position of medical superintendent of an asylum, the claims of the men who have spent their lives as asylum internes being altogether disregarded. The incident may be the means of directing attention to these anomalous appointments.

FOREIGN.

Nobel Prize.—Major Ronald Ross, Liverpool, of mosquito expedition fame, has been suggested as a probable recipient of the Nobel prize of $15,000 for malaria research.

Greek Neurologic Periodical.—Vlavianos of Athens has founded a periodical to be devoted exclusively to subjects connected with psychiatry and neurology. The young editor has already won a name by his previous contributions to the literature of these branches.

The Italian Congress of Internal Medicine was held at Rome, October 28, with Dr. Bacelli, the president, in the chair. The main addresses were on "Intravenous Medication," by Patella and Mariani; "Hysteric Fever," by Ughetti, and the "Pathology of Nephritis," by Ascoli.

Institute for Public Hygiene.—Moscow is planning an institute to train physicians for the official sanitary service. The course will include lectures and practical demonstrations. The idea owes its origin to Professor Kapustin of Kasan, and a committee is now at work on the project.

Cholera Spreads in Holy Land.—The source of the widespread epidemic of cholera throughout Palestine, which we have mentioned, was the exodus of panic-stricken fugitives from Egypt endeavoring to escape from the visitation of cholera, which recently swept the valley of the Nile down to Cairo. The crowds escaped through the desert practically by the same route taken by the children of Israel in the exodus under Moses. They reached the Holy Land about October 10, and have spread the disease throughout the country. The lethargic government has been wholly unable to cope with the situation or to restrain the people. The ancient city of Gaza, memorable from the exploits of Samson, suffered severely, 984 deaths being recorded. The epidemic is now decreasing in all the localities first attacked, but fresh cases appear daily in new places. The total number of deaths is stated as 1864. The government is endeavoring to confine the epidemic to Palestine.

Book Notices.

LEDGER OF MONTHLY BALANCES AND INDEX OF ACCOUNTS, to Be Used in Connection with the Physicians' Protective Visiting List Constituting the Physicians' Protective Accountant. In Two Books. Leather. Price, $2.00. Chicago: The Clinic Publishing Co. 1901.

This is a very compact, simple and economic system of keeping accounts. At first examination the general arrangement seems complicated, but this is more apparent than real, and its practical utility is soon evident when closely studied or when put into use. The system consists of two books, a ledger and a monthly visiting list. While the former is intended for the pocket it really takes the place of the ordinary ledger, and is not necessarily to be carried on one's person. The visiting list consists of a durable cover, for the monthly lists the latter being changed each month. This arrangement makes the book to be carried in the pocket, compact, light and flexible.

A TEXT-BOOK OF PATHOLOGY AND PATHOLOGIC ANATOMY. By Dr. Hans Schmaus, Extraordinary Professor and First Assistant in the Pathological Institute, Munich. Translated from the Sixth German Edition, by Dr. A. E. Thayer, M.D., Instructor in Pathology in the Cornell University Medical College, New York. Edited, with Additions, by James Ewing, M.D., Professor of Pathology in the Cornell University Medical College, New York. Illustrated with 351 Engravings, Including 35 Colored Inset Plates. Cloth. Pp. 602. Price, $4.00. Philadelphia and New York: Lea Brothers & Co. 1902.

This book contains a condensed statement of the principal facts of pathology, more particularly general pathological histology and pathological anatomy. That its scope and the character of its subject-matter merit the extravagant praise of the editor, we are much inclined to question. In spite of the fact that it has passed through several editions in Germany within a few years, we doubt the desirability, from a pedagogic point of view, of putting into the hands of American medical students so dogmatic and "condensed" a statement of the present knowledge as to create the impression that pathology is a dead and not a living and daily growing science. Unless supplemented by stimulating explanations and references to other works and articles by an enthusiastic teacher and by a first-rate course in laboratory work, we are inclined to fear that the ordinary student after having committed the principal parts of this book so well to memory that he could answer readily the questions of the recitation room, would think that he "knew it all." At the most this book can serve only as an introduction to the study of pathology. It is well gotten up and the illustrations are good; many of the colored ones, however, lack necessary explanation as to the staining methods used. We have not been able to find in this book a satisfactory statement of the theory of cytotoxin formation and action presented by Ehrlich, and so fruitful of valuable investigation in hemolysis, bacteriolysis and allied fields of the greatest importance to pathology.

A SYSTEM OF PHYSIOLOGICAL THERAPEUTICS. A Practical Exposition of the Methods, Other Than Drug-Giving, Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M. M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic. Volume IX. Hydrotherapy, Thermotherapy, Heliotherapy, and Phototherapy. By Dr. Wilhelm Winternitz, Professor of Clinical Medicine in the University of Vienna. Assisted by Dr. Alois Strasser and Dr. B. Buxbaum; and Balneology and Crounotherapy by Dr. E. Heinrich Kisch. Eighty-four Illustrations. Cloth. Pp. 570. Price, $27.50 per set. Philadelphia: P. Blakiston's Son & Co. 1902.

This volume is devoted to hydrotherapy, thermotherapy, heliotherapy and phototherapy. It also contains notes on American springs by Guy Hinsdale and chapters on the classi-

fication of mineral waters and their distribution in the United States by A. C. Peale. The chapter on the "Practice of Phototherapy and Thermotherapy" is written by J. H. Kellogg. This volume also contains a very interesting article by Harvey Cushing on "Saline Irrigation and Infusions." A chapter on "The Methods for Therapeutic Use of Water, Heat, Cold, Light and Mineral Baths" is appended by the editor. This volume is the most useful to the general practitioner of any of the series with the possible exception of Volume VI. Part one treats of the physiologic basis of hydrotherapy, its mechanical and chemical effects on the different organs. Part two considers the technic and methods of application, describing, with splendid illustrations, the method of giving a general bath, partial baths, wet packs, the application of coils, bags, etc. Part three treats of the hydrotherapeutic measures to be applied in disease of the different organs and in the infectious diseases. The supplemental chapters take up heliotherapy, electrotherapy and the application of dry and moist heat. One chapter is devoted to the use of saline irrigations and infusions and their methods of administration. This chapter is of special practical importance to the general practitioner. While the volume contains, in order to be thorough, chapters on unimportant subjects, such as gas baths, peat baths, medicated baths, etc., it contains a sufficient amount of practical matter to render it a book of great value.

GENERAL PARESIS: Practical and Clinical. By Robert Howland Chase, A.M., M.D., Physician-in-Chief, Friends Asylum for the Insane. Illustrated. Cloth. Pp. 291. Price, $1.75. Philadelphia: P. Blakiston's Son & Co. 1902.

Chase has taken the most modern name for the subject which he here treats and for a convenient little monograph which covers quite completely, though in rather a general way, the whole range of symptoms, pathology, treatment, etc. He has gone over the authorities and literature of the subject very thoroughly and has given in a condensed form the general facts. The book is full of illustrative cases taken from all sources. As regards the question of etiology, the author does not follow those who consider it exclusively of syphilitic antecedents, but recognizes a syphilitic insanity as closely resembling this condition. The illustrations are excellent and give one a very fair idea of the general appearance of paresis in its different stages. We notice an omission as regards the differential diagnosis. There is nothing specially said in regard to one of the most important points, namely, distinguishing the early symptoms of this disease from neurasthenia. There have been so many that have tried to point out the differences in recent literature that it would have been well had the author given some general remarks at least on this point. The fact is that it is impossible to distinguish the early stages of paresis from many cases of neurasthenia, the distinction made as regards the loss of memory, etc., is not reliable. Another criticism which we might make is that some of the abstracts or illustrations from the literature are rather too brief to be of special value or particularly to the point. This, however, is a minor matter, and as a whole the book is one that will be of service and a convenient one for consultation by those who have to do with this, unfortunately, too prevalent disease.

Marriages.

EDGAR S. HOOPER, M.D., to Miss Emma Vickers, both of Darlington, Wis., November 12.

JOHN THOMAS MOORE, M.D., to Miss Dorcas Pennock, both of Algood, Tenn., November 12.

JOHN J. HORTON, M.D., New Market, Ala., to Miss Broughton of Elora, Tenn., November 11.

HIRAM A. FULTON, M.D., to Miss Jeanette Putnam, both of Eau Claire, Wis., November 5.

ALBERT E. SELLENINGS, M.D., New York, to Miss Florence Corner of Columbus, Ohio, November 25.

JUNIUS H. WATTLES, JR., M.D., Kenosha, Wis., to Miss Amy A. Bamber of Kansas City, Mo., November 14.

SAMUEL M. D. CLARK, M.D., New Orleans, to Miss Elise Cockerham of Natchitoches, La., November 15.

CLARENCE S. MAXWELL, M.D., Mount Olive, N. C., to Miss Addie Thomas of Beaufort, N. C., November 12.

EDWARD AUGUSTUS CORCORAN, M.D., and Katherine Winifred McCarthy, M.D., both of Chicago, August 28.

GEORGE W. BREWSTER, M.D., Boston, Mass., to Miss Ellen Mackenzie Hodge of Washington, D. C., November 11.

SAMUEL K. FROST, M.D., New York City, to Mrs. Josephine Mayo Stillman of Pittsfield, Mass, in Brooklyn, November 15.

JACOB HINDEN, M.D., Strong City, Kan., to Miss Myra E. Lomas of Topeka, Kan., at Williamsburg, Kan., November 12.

POWELL C. FAUNTLEROY, captain and assistant surgeon, U. S. Army, Madison Barracks, New York, to Miss Blanche McGonigle, at Leavenworth, Kan., November 19.

Deaths.

Walter Reed, M.D.—In the death of Dr. Walter Reed of the Army, which occurred November 23, scientific medicine has suffered a severe loss, and the profession has been bereft of a constant and enthusiastic student. Walter Reed was born in Virginia in 1857, was graduated from the Medical Department of the University of Virginia, Charlottesville, and from Bellevue Hospital Medical College, New York. He was appointed from Virginia to the Medical Department of the Army and was commissioned first-lieutenant and assistant surgeon, June 26, 1875; five years later he was made captain and assistant surgeon, and on Dec. 4, 1893, was promoted to the position of major and surgeon. At the time of his death he was at the head of the list of majors of the Medical Department of the Army. He made special studies in bacteriology at the Johns Hopkins Hospital, Baltimore, then was assigned to duty as attending surgeon at St. Paul, and from there was selected by the Surgeon-General as bacteriologist in his office, and was on duty there from 1893 until the outbreak of the Spanish-American War. During that time he was a member of the board of medical officers to investigate and report on the prevalence of typhoid fever in home camps and the commission recommended the plan of collecting excreta in galvanized iron tanks, which was afterwards successfully carried out at the U. S. General Hospital, Presidio, Cal., and was followed by cessation of the disease. His especial work was in the line or preventive medicine and military hygiene. His most notable services to the science of medicine were those connected with yellow fever. He was appointed president of the board, the other members of which were Drs. Carroll and Agramonte of the Army, which met in Cuba for the study of yellow fever, and their discoveries in connection with the cause and prevention of this disease mark an epoch in medicine. Their reports have already been published in THE JOURNAL and show the highest degree of scientific accuracy combined with excellent discrimination. Dr. Reed was operated on for appendicitis on November 17, but did not rally from the operation, and died November 23.

Harrison Steele, M.D. Rush Medical College, Chicago, 1868, chief surgeon of the Toledo, Peoria and Western Railroad, a member of the Illinois State Medical Society, and once president of the Peoria City Medical Society, died at his home in Peoria, November 14, after a lingering illness, aged 66. The Peoria City Medical Society, at a special meeting held November 15, passed resolutions of eulogy and sorrow.

William Henry Haynes, M.D. New York University, 1878, a specialist in nervous and mental diseases and president of the Brooklyn Society for Neurology, died at his home in Brooklyn, November 15, from Bright's disease, after an illness of one year, aged 46.

William H. Crim, M.D. University of Maryland, 1870, died suddenly at his home in Baltimore, from heart disease, November 15, aged 57. He was assistant surgeon of the Fifth Regiment, Maryland National Guard, in 1872, and surgeon in 1881.

John H. Currey, M.D. Shelby Medical College, Nashville, Tenn., a surgeon in the Confederate service, in the Civil War, and postmaster of Nashville, Tenn., for several years, died at his home near Nashville, November 11, from apoplexy, aged 71.

Roger Trowbridge Atkinson, M.D. *cum laude*, Harvard University Medical School, 1898, assistant surgeon, U. S. Navy, attached to the U. S. S. *Prairie*, died at the Naval Hospital, Norfolk, Va., November 10, from malarial fever, aged 30.

Thomas E. Powell, M.D. University of Louisville, Ky., 1874, some-time president of the Vanderburg Medical Society, died at his home in Evansville, Ind., November 17, from rheumatism of the heart, aged 55.

Frederick W. Vandersloot, M.D. University of Maryland, Baltimore, 1855, for many years a practitioner of Lock Haven, Pa., died at his home in Wilmington, Del., from heart disease, November 14, aged 72.

Leroy J. Wisman, M.D. University of Michigan, Ann Arbor, 1898, a member of the Livingston County (Ill.) Medical Society, died at his home in Huntington, Ind., November 9, after a short illness.

Charles Brewster Spratt, M.D. Jefferson Medical College, Philadelphia, 1897, of Jacksonville, Fla., died, November 13, from typhoid fever, aged 32. At a special meeting of the Duval County Medical Society, November 13, resolutions were adopted.

Lundern M. Phillips, M.D. University of Vermont, 1882, a member of the Yates County (N. Y.) Medical Society, died at his home in Penn Yan, from stomach trouble, November 10, aged 44.

Ira B. Geer, M.D. formerly of Evanston, Ill., but for several years a resident of Florida, died at his home in Winter Park, November 8, from debility, following a fracture of the hip, aged 84.

James William McQuitty, M.D. Missouri Medical College, St. Louis, 1894, died at his home in Midway, Mo., from an overdose of opium accidentally administered, November 5, aged 30.

George F. Melifant, M.D. Dartmouth Medical College, Hanover, N. H., 1888, died at his home in Millville, Mass., November 4, from biliary colic, after a short illness, aged 38.

Durham M. Creel, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1878, died at his home in Industry, November 12, from exhaustion following a carbuncle on the neck, aged 83.

Gregory J. Phelan, M.D. New York University, 1847, a member of the American Medical Association, died at his home in San Francisco, November 5, from paralysis, aged 80.

A. DeV. Boggs, M.D. Texas Medical College and Hospital, Galveston, 1868, died at his residence in Marquez, Texas, November 7, from pneumonia, after a short illness, aged 58.

James Allen Meek, M.D. Jefferson Medical College, Philadelphia, 1881, died from pneumonia at his home in Bunker Hill, Ind., October 30, after an illness of two weeks, aged 74.

Charles M. Hollingsworth, M.D. University of Maryland, Baltimore, 1882, died suddenly at his home in Harrisonburg, Va., from heart disease, November 9, aged 45.

Duncan McLarty, M.D. Toronto (Ont.) University, 1867, twice mayor of St. Thomas, Ont., died at Buffalo General Hospital, a week after an operation, aged 63.

Francis T. R. Wagner, M.D. University of Gottingen, Germany, 1857, died suddenly from apoplexy, at his home in Wilkesbarre, Pa., November 1, aged 68.

Alex. H. Davidson, M.D. Tulane University, New Orleans, 1895, of Boerne, Texas, died at San Antonio, November 2, from peritonitis, after a long illness, aged 39.

William H. Kimberlin, M.D. Hospital Medical College, Kansas City, 1884, an eye specialist of Kansas City, was shot and killed by a patient, November 11.

James B. Clifton, M.D. New York University, 1857, died at his home in Louisburg, N. C., November 2, from paralysis, after an illness of one week, aged 67.

Charles R. Riebsam, M.D. University of Pennsylvania, Philadelphia, died at his home in Madison, Wis., November 12, after an illness of one day, aged 76.

Willis Sperry, M.D. Western Reserve University, Cleveland, Ohio, 1851, died at his home in Tallmadge, Ohio, November 7, from heart disease, aged 79.

Alfred Booth, M.D. Harvard University Medical School, Boston, died at his home in Springfield, Mass., November 16, from senile debility, aged 78.

Newell G. Tullis, M.D. Medical College of Georgia, Augusta, 1872, died at his home in Thomasville, Ga., November 11, after a long illness, aged 50.

David Lyle, M.D. Medical College of the State of South Carolina, Charleston, 1868, died at his home in the Edgemoor Section, S. C., November 10.

J. Moore Hart, M.D. Trinity Medical College, Toronto, 1871, of Toronto, while hunting in Muskoka, died suddenly, November 10, from apoplexy, aged 52.

J. S. Spangler, M.D. College of Physicians and Surgeons, Keokuk, Iowa, died at his home in Ute, Iowa, November 5, from pneumonia, aged 43.

H. M. Craton, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1867, of Jesup, Iowa, died at Downing, Wis., November 18, aged 76.

William Henry Hosmer, M.D. Dartmouth Medical College, Hanover, N. H., 1838, died at his home in Penacook, N. H., November 15, aged 88.

George S. Dodge, M.D. Harvard University Medical School, Boston, 1881, died at his home in West Acton, Mass., November 2, after a long illness.

Ransom R. Crothers, M.D. University of Maryland, 1873, at Colora, Md., November 8, from heart disease, after an illness of two weeks, aged 57.

John C. Hardy, M.D. Columbus (Ohio) Medical College, 1881, died at his home in Marietta, Ohio, from hemorrhage of the stomach, aged 47.

Adelbert E. Burdick, M.D. New York University, 1873, died at his home in Manistique, Mich., November 12, from tuberculosis, aged 56.

Junius H. Wattles, M.D. University Medical College, Kansas City, Mo., 1897, died at his home in that city, November 9, aged about 50.

Arthur Britnall, M.D. Western Reserve University, Cleveland, Ohio, 1881, of Liverpool, Ohio, died recently at Lakeside Hospital, Cleveland.

Samuel C. Fechtig, M.D. University of Pennsylvania, Philadelphia, 1846, died at his home in Wellersburg, Pa., November 2, aged 80.

George W. Fringer, M.D. Missouri Medical College, St. Louis, 1869, died at his home in Pana, Ill., November 17, aged 67.

William P. Kennedy, M.D. University of Maryland, Baltimore, 1885, died at his home, in Warsaw, N. C., November 9.

Miscellany.

Clippings from Lay Exchanges.

HOW IS THE PATIENT?

"Last Saturday, Dr. —— performed an operation . . . which, from a scientific standpoint, places former recorded operations in the dark. —— has been afflicted with plural effusion of the right lung. Dr. —— inserted the pump, and after extracting about a pint was inclined to let it rest at that, but the patient was not in the least fatigued so he continued and removed the entire accumulation, 68 ounces or more than half a gallon.

"Dr. —— has the bottle and its contents on exhibition. The quantity removed is double what the authorities claimed to be a safe operation."—*Ione* (Cal.) *Echo*, May 10, 1902.

SEVERAL SPINAL JOINTS REMOVED.

"The physicians at the City Hospital yesterday performed the operation of laminectomy upon ——, an Italian, in hopes of relieving him of paralysis caused by a broken back. . . . The physicians removed several joints from the backbone to relieve the pressure against the spinal cord which causes the paralysis."—*Cincinnati* (Ohio) *Commercial Tribune*, April 25, 1902.

SLIPPED INNOMINATE.

"Mr. B—— had been examined and treated by a number of prominent physicians but the cause of his trouble which was usually diagnosed as sciatica had been overlooked. His condition was one that osteopaths term 'slipped innominate,' the ilium on the affected side being slightly dislocated upward and backward."—*Ludington* (Mich.) *Record-Appeal*, May 16, 1902.

A DARNED RUPTURE.

"Dr. —— and his assistants placed about twenty-five feet of silver wire in ——'s abdomen in darning a rupture of the anterior abdominal wall."—*Chicago Chronicle*, April 25, 1902.

THE WISCONSIN FOR HAHNEMANN.

"Dr. ——, Dean of Hawwernawn Medical college was in town on Thursday. . . ."—*Janesville* (Wis.) *Gazette*, June 1, 1901.

ERAMIC COMA.

"Dr. J. E. McD—— died at the family residence. . . . The immediate cause of death was eramic coma the same being brought on by catarrhal jaundice and kidney and bladder trouble."—*Quincy* (Ill.) *Journal*, April 22, 1902.

State Boards of Registration.

Prosecution in Kansas.—Dr. H. W. Roby, Topeka, secretary of the Kansas board, is to be congratulated on his campaign against unlicensed practitioners in that state. Information against seventeen of these in Kansas City, Kan., has been filed, and thirty more are to be proceeded against in that city.

Osteopathic School Not Reputable.—Some time ago, one M. V. Aldrich was refused license in Goshen, Ind., because he did not have a diploma from a college of the required standing. He sued the Indiana board and was defeated. On appeal the decision against him has just been reaffirmed. The evidence in the case showed that the college which Mr. Aldrich attended, the National School of Osteopathy, Chicago, is not what the board considers "reputable."

Illinois April Examination.—The following is a report of the examination held by the Illinois State Board of Health, at Chicago, April 9-11, 1902, as supplied by Dr. J. A. Egan, secretary, Springfield: Written examination; subjects, 11; questions, 110; percentage required to pass, 75; total number examined, 98; passed 93; failed, 5.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
992	R.	College of Phys. and Surgs., Chicago.	1902	85
999	R.	College of Phys. and Surgs., Chicago.	1902	84
1010	R.	College of Phys. and Surgs., Chicago.	1902	84
1025	R.	College of Phys. and Surgs., Chicago.	1902	83
1034	R.	College of Phys. and Surgs., Chicago.	1902	81
1036	R.	College of Phys. and Surgs., Chicago.	1902	82
1039	R.	College of Phys. and Surgs., Chicago.	1902	85
1040	R.	College of Phys. and Surgs., Chicago.	1900	81
1041	R.	College of Phys. and Surgs., Chicago.	1902	82
1061	R.	College of Phys. and Surgs., Chicago.	1902	82
1062	R.	College of Phys. and Surgs., Chicago.	1902	79
1074	R.	College of Phys. and Surgs., Chicago.	1902	81
1086	R.	College of Phys. and Surgs., Chicago.	1902	84
1087	R.	College of Phys. and Surgs., Chicago.	1902	83
993	R.	Rush Medical College.....	1901	87
996	R.	Rush Medical College.....	1902	86
997	R.	Rush Medical College.....	1902	86
998	R.	Rush Medical College.....	1902	88
1002	R.	Rush Medical College.....	1902	87
1004	R.	Rush Medical College.....	1902	87
1007	R.	Rush Medical College.....	1900	79
1015	R.	Rush Medical College.....	1902	78
1017	R.	Rush Medical College.....	1902	89
1021	R.	Rush Medical College.....	1902	84
1023	R.	Rush Medical College.....	1902	82
1026	R.	Rush Medical College.....	1902	86
1028	R.	Rush Medical College.....	1902	92
1029	R.	Rush Medical College.....	1902	90
1033	R.	Rush Medical College.....	1902	85
1035	R.	Rush Medical College.....	1902	84
1037	R.	Rush Medical College.....	1902	91
1044	R.	Rush Medical College.....	1902	83
1045	R.	Rush Medical College.....	1902	90
1049	R.	Rush Medical College.....	1902	87
1054	R.	Rush Medical College.....	1902	80
1056	R.	Rush Medical College.....	1902	80
1063	R.	Rush Medical College.....	1902	87
1064	R.	Rush Medical College.....	1902	90
1065	R.	Rush Medical College.....	1902	88
1068	R.	Rush Medical College.....	1902	83
1076	R.	Rush Medical College.....	1900	90
1085	R.	Rush Medical College.....	1901	83
1089	R.	Rush Medical College.....	1902	85
994	H.	Chicago Homeo. Medical College....	1902	84
1083	H.	Chicago Homeopathic Medical College	1902	85
995	H.	Dunham Medical College.....	1902	86
1060	H.	Dunham Medical College.....	1902	90
1069	H.	Dunham Medical College.....	1902	80
1000	R.	St. Louis College of Phys. and Surgs.	1902	81
1008	R.	St. Louis College of Phys. and Surgs.	1902	81
1019	R.	St. Louis College of Phys. and Surgs.	1902	80
1047	R.	St. Louis College of Phys. and Surgs.	1902	82
1071	R.	St. Louis College of Phys. and Surgs.	1902	83
1077	R.	St. Louis College of Phys. and Surgs.	1902	76
1079	R.	St. Louis College of Phys. and Surgs.	1902	79
1005	R.	University of Pennsylvania.....	1898	90
1073	R.	University of Pennsylvania.....	1900	86
1051	R.	University of Naples, Italy.....	1898	84
1052	R.	University of Geneva, Switzerland..	1899	86
1084	R.	University of Michigan.....	1899	88
1006	E.	Bennett Medical College.....	1902	87
1009	E.	Bennett Medical College.....	1902	87
1011	E.	Bennett Medical College.....	1902	86
1012	E.	Bennett Medical College.....	1902	84
1013	E.	Bennett Medical College.....	1902	80
1022	E.	Bennett Medical College.....	1902	80
1024	E.	Bennett Medical College.....	1902	85
1027	E.	Bennett Medical College.....	1902	75
1030	E.	Bennett Medical College.....	1902	88
1046	E.	Bennett Medical College.....	1902	87

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
1053	E.	Bennett Medical College.....	1902	86
1058	E.	Bennett Medical College.....	1902	86
1072	E.	Bennett Medical College.....	1902	85
1078	E.	Bennett Medical College.....	1902	86
1081	E.	Bennett Medical College.....	1902	87
1082	E.	Bennett Medical College.....	1902	88
1014	R.	Northwestern Univ. Medical School.	1902	93
1016	R.	Illinois Medical College.....	1902	82
1048	R.	Illinois Medical College.....	1902	77
1075	R.	Illinois Medical College.....	1902	84
1080	R.	Illinois Medical College.....	1902	80
1018	R.	Laval University, Quebec.....	1901	84
1032	R.	National Medical University.....	1902	87
1050	R.	National Medical University.....	1901	87
1038	E.	American Medical College, St. Louis.	1902	84
1088	E.	American Medical College, St. Louis.	1902	70
1042	R.	Harvey Medical College.....	1902	82
1043	R.	Marion Sims Med. College, St. Louis	1899	92
1055	R.	Michigan Coll. of M. and S., Detroit.	1901	77
1057	R.	Jefferson Medical College.....	1875	81
1066	R.	Louisville Medical College.....	1902	77
1067	P.M.	College of Med. and Surg., Chicago..	1902	86
1070	H.	Hahnemann Medical College, Chicago	1902	86

FAILED.

1001	P.M.	National Medical University, Chicago	1902	70
1003	H.	Hahnemann Medical College, Chicago	1901	73
1020	H.	Hahnemann Medical College, Chicago	1884	69
1031	R.	Jenner Medical College.....	1901	64
1059	R.	College of Phys. and Surgs., Chicago.	1902	73

Association News.

Report on the Pathologic Exhibit.

Dr. F. M. Jeffries, New York, Chairman of the Committee on Pathologic Exhibit at the Saratoga meeting of the American Medical Association, held June 10 to 13, 1902, makes the following report:

From a standpoint of attendance as well as the extent of the materials brought to Saratoga the exhibit was an undoubted success this year, even exceeding the expectations of those interested in its achievement.

The Committee wishes to express its sincerest gratitude to those by whose efforts this success was attained. Those not familiar with museum and laboratory work can form no appreciation of the amount of labor involved in the selection, preparation and shipment of an exhibit. It means labor, too, for which not even an indirect monetary remuneration can be expected and accordingly are the thanks of the American Medical Association as a whole all the more necessary.

Those who have felt that such an exhibit was not only impractical but unnecessary have now had three successful exhibits to point out their errors. The Scientific Exhibit is not intended to be of interest alone to laboratory men—this is indeed a small part of its scope. It is true the laboratory man finds here a mint of information in his line, especially in the art of mounting and preserving museum specimens. He comes in contact with workers in the same line from all parts of the continent and leaves the exhibit with a host of new ideas which he could never have attained by a perusal of all current literature.

But what of the greater number of visitors—the practitioners, be they general practitioners, surgeons or specialists? No matter what his specialty the medical man could find here unlimited material, all grist for his mill. No one museum or laboratory could afford him the practical information that awaited him here. And notwithstanding the statement made in the opening paragraph concerning the attendance, the writer feels that the members did not take advantage of the exhibit as they should. There were scores present in Saratoga who did not visit the exhibit. Many of those who called did so because friends discovered (?) the exhibit and went out and brought them in.

The location this year was ideal in every respect and should be remembered by future committees on arrangements. If the attendance is not all that could be wished in such quarters much less must be expected in rooms that are inaccessible or otherwise undesirable.

The exhibit was housed in the ball-room of Congress Hall, one flight up and fronting on the main street. We had a sign up across the sidewalk beneath which every visitor had to pass in order to get to the bureau of registration, Association post office, etc.

The scope of the exhibit was even greater than that of 1900, though numerically it was not so great, comprising as it did 1,528 specimens as opposed to 2,130 at St. Paul. It will be observed that the number of exhibitors is surprisingly small when the number of exhibits is considered.

It was the effort of the committee this year to avoid the necessity of classification at the exhibit by having each exhibitor confine his selections as far as possible to materials illustrative of one theme, as it were. By this means each exhibit was left intact, which was not only a source of satisfaction to the exhibitors, but was a means of saving much labor when time was a consideration.

In the opinion of the committee future exhibits should not be larger than the one at present under consideration. In the first place a larger exhibit might be uninviting to the visitor because of its extensiveness and the labor involved in its inspection. Secondly, a larger exhibit could hardly be accommodated with satisfactory housing and thus cause the exhibits to be cramped and crowded. And finally, future exhibits must be considered and we must not put all our eggs in one basket, as it were.

Though the exhibit is under the auspices of the Section on Pathology and Physiology, the physiologic exhibit was woefully meager and yet the physiologic laboratories and classrooms could furnish valuable materials in almost unlimited quantities. The attention of future committees is called to this feature that they may put forth extra efforts to secure such exhibits and thus greatly enhance the usefulness of the department.

The attention of future committees is finally called to the necessity of having an attendant at the door of the hall to keep out those having nothing but morbid curiosity to satisfy. At Saratoga it was found that the local population became greatly interested, and boys, girls, men and women began to fill the hall until it became necessary to station a man at the door, and if this man's experience counts for anything, future attendants should be of the strenuous sort.

Our thanks are due to the Albany Medical College and Ernst Leitz for the loan of fifty microscopes during the session.

LIST OF EXHIBITS.

COLLEGE OF PHYSICIANS, MILWAUKEE: THOMAS FITZGIBBONS.

Photographic illustrations of tumors removed	35

Such a collection taken in conjunction with the microscopic sections and histories would comprise a most valuable source of information.

DR. BYRON ROBINSON, CHICAGO.

Skiagraphs of injected subjects demonstrating vascular systems	15

CORNELL MEDICAL COLLEGE, DR. B. H. BUXTON.

Microphotographs and enlargements, tissues and bacteria	50

This collection was admirable in every respect and represents the highest type of skill and perfection in laboratory photography.

CORNELL MEDICAL COLLEGE, DR. J. EWING.

Confluent hemorrhagic variola, diphtheritic bronchitis and lobular pneumonia:	
Conglomerate eruption (full pustular stage)	1
Confluent variola, diffuse and hemorrhagic	1
Confluent scabbing (forearm)	1
Bullous:	
Secondary hemorrhagic variola, diphtheritic tracheitis	1
Acute ulcerative endocarditis (variola)	1
Late discrete variola (trachea)	1
Conglomerate hemorrhagic	1
Punctate hemorrhagic in a bleeder	1
Various hemorrhagic in a bleeder	1
Conglomerate eruption—diffuse, hemorrhagic	1
Scanty discrete variola—late scarlatina—form eruption	1
Various stages of eruption—hemorrhagic, petechiæ	1
Early confluent (trachea)	1
Primary hemorrhagic (kidney, 2 cases)	2
Primary hemorrhagic (trachea, 2 cases)	2
Early secondary hemorrhagic (trachea)	1
Full pustular eruption (infant)	1
Confluent secondary hemorrhagic	1
Confluent secondary hemorrhagic (black smallpox)	1
Primary hemorrhagic (negro)	1
Human glanders (pustular lesions of the skin)	1
Variola (rib)	1
Primary hemorrhagic (death on third day of disease)	1
Confluent secondary hemorrhagic (trachea)	1
Diphtheritic lesions of the trachea. Peritracheal edema and death after tracheotomy:	
Primary hemorrhagic (trachea)	1
Primary hemorrhagic (colon)	1
Discrete lesion of trachea	1
Acute ulcerative endocarditis (variola)	1
Confluent pustular	1
Flat bullous and sero-pustular eruption (child)	1
Hemorrhagic and necrotic orchitis (variola)	1
Mesenteric lymph nodes (child) (variola)	1
Total	34

CORNELL MEDICAL COLLEGE, DR. JOHNSTON.

Melanoma: Tumor and metastases in skin, liver, lungs and heart	6
Spindle-celled Sarcoma: Pedunculated growth from skin of thigh, 20 years' standing	1
Endothelioma from below inferior maxilla	1
Total	8

BOSTON UNIVERSITY SCHOOL OF MEDICINE, O. R. CHADWELL AND W. H. WATERS.

Gross pathologic specimens preserved in Kaiserling's fluid and mounted in gelatin in Petri dishes	88

Too much can not be said in praise of this collection or of this method for mounting tissues for teaching purposes. The natural colors and markings are retained, close inspection is admitted.

DARTMOUTH MEDICAL SCHOOL.

Fibroma of uterus, weight 42 pounds	1
Malignant adenoma of fundus uteri	1
Congenital cystic kidney	1
Spindle-celled sarcoma, lower jaw	2
Carcinoma of omentum	1
Epithelioma of cervix uteri	3
Carcinoma of colon	1
Total	10

DR. D. A. KUYK, RICHMOND, VA.

Gross and microscopic specimens of tubercular iritis in girl 11 years of age	6

EDWARD GIBBS, X-RAY LABORATORY, N. Y. UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE.

X-ray illustrations of bronchial tree *in situ* injected with fine bird shot	7

DR. H. G. GRAHAM, CHICAGO.

Microscopic demonstrations of diatomacæ and bacteria	14

DR. WINFIELD S. HALL, CHICAGO.

Chest pantograph for measuring contours of chests	1

DR. LEO LOEB.

Sarcoma of rat with drawings from microscopic specimens	3

N. Y. HOSPITAL FOR RUPTURED AND CRIPPLED—F. M. JEFFRIES.

Ostitis of vertebræ	5
Multiple ostitis	1
Muscular cavanoma	1
Hip-joint disease	2
Osteo-myelitis, femur and tibia	1
Ankylosis of knee-joint	1
Tubercular otitis, lower end of femur	2
Tubercular ostitis os calcis	1
Double hip-joint disease, bony ankylosis	1
Total	15

DR. A. D. MEWBORN, NEW YORK CITY.

Cultures of fungi of skin diseases grown on media in Erlenmeyer flasks	77
Photographs of same	16
Lantern slides of same	13
Colored charts illustrating skin lesions	9
Slides of drop cultures of trichophytons, microsporum, achorion oospora, etc.	25
Bodin's method of making drop cultures of trichophytons	1
New method of making drop cultures of the hyphomycetæ	1
Total	142

This collection gave evidence of a great amount of labor requiring skill and patience and embracing a department of biology greatly neglected in this country. Dr. Mewborn is to be congratulated on the results he has attained.

MUSEUM MOSES TAYLOR HOSPITAL, DR. J. M. WAINWRIGHT, SCRANTON, PA.

Joint-mice	2

HARVARD MEDICAL SCHOOL, DR. W. T. PORTER.

Exhibit of some new physiologic apparatus	12

HYGIENIC LABORATORY, U. S. MARINE-HOSPITAL SERVICE.

Cultures of tubercle bacilli on various fruits and vegetables as nutrient media	72
Cultures of acid-proof bacilli resembling tubercle bacilli grown on various fruits and vegetables as nutrient media	72
Total	144

MEDICAL CLINIC OF RUSH MEDICAL COLLEGE, DR. FRANK BILLINGS.

Series of microphotographs of spinal cord lesions	20

THE UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE, LEON T. LE WALD.

Larynx, edema of	2
Larynx, syphilitic ulceration of	1
Larynx, asphyxia due to lodgment of collar button	1
Lung, from 2-year-old child, showing acute lobar pneumonia and and fibro-purulent pleurisy	1
Lung, tuberculosis, acute or chronic	1

Lung, acute phthisis	1
Lung, chronic tuberculosis, showing large hemorrhage	1
Liver, echinococcus multilocularis, fourth in the U. S.	1
Liver, solitary abscess (amebic colitis)	1
Kidney, hypernephroma	1
Kidney, chronic tuberculosis	1
Kidney, embolic abscesses	1
Kidney, renal calculi	1
Kidney, cystic (congenital)	1
Kidney (pair), post-scarlatinal nephritis	1
Kidney (pair), fatty and parenchymatous degeneration	1
Bladder, papilloma	1
Brain, sarcoma of right optic thalamus	1
Brain, endothelioma of dura indenting brain	1
Brain, atheroma of cerebral vessels	1
Brain, hemorrhage into cerebellum	1
Brain, glioma of frontal lobe	1
Spleen, marked miliary tuberculosis	1
Fibroid uterus complicating pregnancy	2
Carcinoma of cervix uteri complicating pregnancy	1
Fetus in utero—seven weeks' gestation	1
Fetus with membranes, about five weeks' gestation	1
Placenta from case of triplets	1
Anencephalic monster, two-faced	1
Cephalothoracopagus	1
Heart, chronic interstitial myocarditis	1
Heart, fatty degeneration	1
Melano-sarcoma of humerus	1
Sarcoma of small intestine	1
Carcinoma of stomach	1

H. J. PRENTICE.

Radiographs, showing bronchial tree *in situ*, injected with fine bird shot	7

L. B. GOLDHORN.

Photomicrographs and drawings of blood parasites stained by the Goldhorn method	23
Total	67

This collection from the University and Bellevue Hospital Medical College, comprising as it did such a diversity of material, rich in rare specimens, was worth all the trouble encountered in getting up the exhibit. The laboratory work in its preparation represented the highest type.

COLLEGE OF PHYSICIANS AND SURGEONS, CHICAGO, ILL.

Gangrene specimens	7
Liver specimens	6
Heart specimens	10
Pelvic specimens	24
Brain specimens	16
Sympus apus	1
Hare lip and cast	1
Double aorta	1
Head sections	42
Comparative anatomy: ostrich, bear, turtle, opossum, snake, pig, ox, horse, deer, sheep	20
Pelvic skiagraphs (Robinson)	11
Students' theses	36
Total	175

This was one of the most extensive exhibits presented. Particularly valuable were the dissections and head sections. These were of a nature and accuracy rarely encountered, and in justice to all concerned it should be stated that they were prepared by the students of the college.

The 36 cases of theses represent the regular work of the students.

DR. ROBERT ABBE, NEW YORK.

Chronic latent appendicitis	10
Obliterating appendicitis	10
Single tight strictures, appendix	10
Concretions beyond strictures, appendix	5
Gangrene beyond strictures	5
Acute septic follicular ulcer of appendix	14
Graphic and easy method of illustrating and demonstrating retrograde changes in inoperable cancer of breast during treatment with *x*-ray, by means of plaster casts	3
Total	57

This collection is not only remarkable for its elaborateness, but for the excellency of their mountings, affording as they do perfect demonstrations of the various lesions of the appendix.

MILWAUKEE MEDICAL COLLEGE, DRS. WUERDEMANN AND BLACK.

Sections of eye in glycerin	80
Collection of photographs illustrating a study of multiple angio-sarcoma	1
Pathological specimens	7
Drawings	7
Microscopical mounts	7
Photographs illustrating eye lesions	36
Total	138

Particularly worthy of mention in this collection was the series of mounts of the eye.

DR. EVANS, LA CROSSE, WIS.

Illustrative cases of cholelithiasis	12

These sets of stones were neatly displayed in a case specially prepared and afforded an excellent demonstration of this lesion.

BROOKLYN HOSPITAL, N. Y., DR. SHERWOOD.

Photographs of patient with pellagra or Italian leprosy	3

DR. T. C. MARTIN, CLEVELAND, OHIO.

Pathologic specimen, congenital valvular obstipation	1
Drawings, lesions rectal mucosa	2

ALBANY MEDICAL COLLEGE.

Skull: Cranial syphilis	2
Inferior maxilla: Necrosis from absorption of phosphorus through cavity of decayed tooth	1
Spinal column: Caries of vertebræ	2
Ankylosis of vertebræ	3
Fracture and distortion of vertebræ	1
Tuberculosis of vertebræ	1
Fracture of vertebræ	1
Humerus: Ankylosis with scapula	1
Humerus: Fractures	6
Elbow-joint ankylosis	2
Radius and ulna: Syphilitic hypertrophy	1
Radius and ulna: Syphilitic periostitis	1
Radius and ulna: Exostosis with ankylosis	1
Radius and ulna: Fracture	1
Femur: Simple fracture	4
Femur: Fracture and distortion	8
Femur: Impacted fracture of head	3
Femur: Oblique fracture	3
Femur: Fracture and necrosis	1
Femur: Fracture and absorption	1
Femur: Necrosis	3
Femur: Caries and necrosis	1
Femur: Abscess and caries	1
Femur: Distortion and softening	1
Femur: Syphilitic hypertrophy	5
Morbus coxæ	2
Femur and tibia: Arthritis deformans	1
Knee-joint caries	2
Knee-joint ankylosis	1
Tibia: Fracture	3
Tibia: Distortion and softening	1
Tibia: Necrosis	1
Tibia: Caries and atrophy	1
Tibia: Syphilitic hypertrophy	4
Tibia and Fibula: Distortion and softening	3
Tibia and Fibula: Fracture	1
Tibia and Fibula: Fracture without treatment	1
Tibia and Fibula: Periostitis from chronic ulcer of leg	1
Tibia and Fibula: Caries	1
Foot: Caries of tarsus, metatarsus and phalanges	1
Total	88

This extensive collection consisted of the dried specimens neatly mounted on wooden bases on each of which the diagnosis was plainly printed. In the writer's experience, there are few medical colleges which possess so extensive and comprehensive a collection of specimens illustrative of bone lesions.

CINCINNATI HOSPITAL MUSEUM.

Lungs: Normal	1
Lungs: Sarcoma	1
Lobar pneumonia, red hepatization	1
Lobar pneumonia, gray hepatization	1
Simple pleurisy	1
Tuberculosis	17
Heart lesions	17
Total	39

NEW YORK POLYCLINIC LABORATORY, F. M. JEFFRIES.

A collection of interesting microscopic mounts:	
Lymph-gland infiltrated with thyroid tissue	1
Endothelioma of breast	1
Sclerosis of penis with ossification	1
Adeno-chondroma of parotid	1
Large round-celled sarcoma of leg	1
Dermatitis papillaris capillitii	1
Struma suprarenalis of kidney	1
Syphilis of tongue	1
Epithelioma from a horse	1
Mixed celled sarcoma from a canary bird	1
Fatty embolus in lung following fracture of rib	1
Granular ependymitis	1
Deciduoma malignum	1
A rare form of hemorrhagic sarcoma from a boy with multiple tumors	1
Colloid carcinoma primary in breast	1
Struma hyperplastica, thyroid	1
Intramural fibroma, intermural myoma and epithelioma, all from one uterus	3
Gumma of intestine	1
Tubercular uterus from child	1
Muscular cavernoma	2
Carcinoma of appendix, primary	1
Petechial hemorrhage cerebellum, malaria	1
Endothelioma of lung	1
Total	26

INDIANA STATE MEDICAL SOCIETY, FRANK B. WYNN, INDIANAPOLIS.

Aneurisms	10

These represented the extremes in size and the various types. One very large one showed lamination most beautifully.

Vesical calculi	40

One of these was formed about chewing gum; another about a pipe-stem; one weighing 4¾ ounces was removed from a lad of ten years; and 35 of them were obtained by operation in a missionary hospital in Persia.

Enteroliths 4

These were as large as small hen's eggs; one was sloughed through the abdominal wall, two passed by the rectum, and one obtained postmortem.

Hair balls, renal calculi, etc., from lower animals 10

Very remarkable in this group was an immense hair-ball ten inches in diameter, composed of hog-hair and obtained from an ox which had grazed upon a pasture field where hog-hair had been strewn.

Miscellaneous specimens 8

Total 72

Among other interesting things, this contained a mortar which belonged to the surgeon of Lafayette; also a skull trephined by Baron Larrey, chief surgeon of Napoleon I, in his campaign against Moscow.

The Indiana State Medical Society is entitled to the distinction of being the pioneer in the pathologic exhibit idea, having had such an exhibit at its annual meetings for five years past, and being the first to make an exhibit at the meeting of the American Medical Association. This was at the Columbus meeting in 1899, when some 300 specimens were shown. The good example set was followed by the inauguration of a Pathologic Exhibit at the Atlantic City meeting, and the adoption of the idea by other state societies.

DR. J. F. SCHAMBERG AND DR. J. F. WALLIS, PHILADELPHIA.

Wax models of cutaneous diseases 21

DR. B. M. RANDOLPH, PHILADELPHIA.

New cabinet for microscopic slides, designed by the late Thos. S. Kirkbride 1

DR. GAYLORD T. CLARK, MEDICAL DEPARTMENT, SYRACUSE UNIVERSITY.

Apparatus demonstrating the action of the aortic and mitral valves 1

This apparatus, designed and made in the college, most effectually attained the ends desired and allowed the complete observation of the valves in action. A bullock's heart was mounted and with cleverly devised water tubes systolic and diastolic rhythm was obtained. This exhibit proved to be one of the most attractive exhibits.

PATHOLOGIC LABORATORY, RUSH MEDICAL COLLEGE, CHICAGO.

Cystic sarcoma of bone 1
Cardiac cirrhosis 1
Chronic hyperplastic splenitis 2
Hyperplastic tuberculosis of great omentum 1
Unilateral arteriosclerotic atrophy of kidney 1
Papillary tumor of the gall bladder, accompanying calculi 1
Chronic caseous nodular tuberculosis of the liver 1
Secondary carcinoma in the subpleural lymph 1
Chronic hyperplastic pleuritis 1
Polypus of the pharynx 1
Septic thrombo-phlebitis of the ovarian vein 1
Diffuse infiltrating and nodular secondary melano-sarcoma of the liver 1
Primary diffuse round-celled sarcoma of the pericardium 1
Chronic hyperplastic tuberculosis of the cecum 1
Metastatic melano-sarcoma of the lymph nodes in the ileum 1
Acute gastritis—arsenical poisoning 1
Diffuse carcinoma of the stomach 1
Experimental oidiomycosis in lung of dog 1
Cast of trachea and bronchi 1
Primary carcinoma of the lung 1
Primary carcinoma of the esophagus 1
Cysticercus cellulosa from brain and spinal cord 1
Metastatic carcinoma nodules of the diaphragmatic surface of the left lung 1
Multiple fibromas of the left sciatic nerve 1
Multiple fibromas of the right sciatic nerve 1
Ascending pyelonephritis with carcinoma of bladder 1
Tuberculous cysto-utero-pyelitis 1
Chronic hyperplastic splenitis with large areas of caseous tuberculosis 1
Primary sarcoma of the spleen 1
Chronic tuberculosis of the skin 1
Chronic gastritis with production of the *"état mamelonné"* 1
Skeleton of a madura foot 1
Bovine actinomycosis, inferior maxilla 1
Specimen illustrating adaptation of the tail for support following traumatic removal of right hind extremity in a rat 1
Sarcoma of the spinal meninges 1
Fat necrosis from a case of gangrenous pancreatitis 1
Cyst of the urachus 1
Hemorrhagic pancreatitis 1
Sarcoma of the bladder with calculus 1
Esophageal diverticulum formed by extension of an abscess of a peribronchial lymph gland 1
Slices of tumor-like growth occurring in bovine actinomycosis 1
Hypernephroma 8
Hypertrophy of the prostate, diverticula of the bladder, vesical calculi 1
Malignant hypernephroma 1
Metastatic growth with myocardium 1
Perforation of the bronchus from suppuration in a peribronchial lymph gland 1
Malarial pigmentation of the skin 1
Acute metritis following abortion 1
Metastatic carcinoma nodules ileum 1
Primary carcinoma of the Fallopian tube 1
Ulcerative colitis from a case of amebic dysentery 1
Stomach from a case of carbolic poisoning 1
Dentiduous cystoma inferior maxilla 1
Multiple secondary carcinoma of the lung 1

Total 62

This was one of the most extensive and valuable exhibits. The collection embraced material covering a wide field of research work and the mounts were of the highest type of perfection.

DR. J. F. SCHAMBERG, PHILADELPHIA.

Skin of hemorrhagic smallpox, preserved in Kaiserling's fluid in hermetically sealed cells 1
Skin of smallpox, fourth day 1
Skin of smallpox, seventh day 1
Skin of smallpox, eighth day 1
Skin of smallpox, hemorrhagic 1

Total 5

DR. M. K. KASSABIAN, IN CHARGE OF ROENTGEN-RAY LABORATORY OF THE MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL OF PHILADELPHIA.

A series of skiagrams: Various stages of pulmonary tuberculosis, aneurism of aorta, displacement of heart, foreign bodies in brain and eye, renal and vesical calculi, every variety of fracture and dislocation and cadavers with injected circulatory and respiratory systems 100

DR. DAVID RIESMAN, PHILADELPHIA.

Mounted sections of pancreas, lung and kidney with calcareous infiltrations from a boy aged 3 years with synostosis of skull 3

DR. HERBERT C. EMERSON, SPRINGFIELD, MASS. (PRIVATE COLLECTION.)

A series of appendices mounted in Kaiserling's fluid and showing various pathologic lesions 30
A series of charts showing laboratory outfits (diagnostic) for pathologic, hematologic and bacteriologic specimens 8

Total 38

Very attractive was the collection of appendices which were mounted in a manner quite original and calculated to best show the specimens.

LABORATORY OF THE STATE LIVE-STOCK SANITARY BOARD OF PHILADELPHIA.

Spleen of calf inoculated with human tubercular sputum 1
Tissues of rabbit with nodules from inoculation with timothy grass bacillus 1
Lung of dog inoculated with culture of tuberculosis from mesenteric gland of child 1
Viscera of monkey fed with cultures of tubercle bacilli from mesenteric gland of child 1
Lung of cow, showing cavity formation, infected experimentally by feeding 1
Tubercular larynx of cow 1
Lungs of pig fed with cultures of human tubercle bacilli 1
Various organs showing results of experimental work with cultures of human tubercle bacilli 10
Viscera of monkey fed with bovine tubercle bacilli from milk 1
Lung of goat infected with human tubercle bacilli 1

Total 19

GRAND TOTAL 1528

Medical Organization.

Membership in State Societies.

One of the fundamental principles in the new plan of organization—new except in a few states—is that membership in the county society carries with it membership in the state society. A few physicians—happily only a few—object to this. Not that they object to the membership, but they are not willing to pay, directly or indirectly, their share of the expenses incurred by the state body. As this is the main objection, on the part of those who have not heretofore supported the state society, to the systematic plan now going into effect, it may be well to consider it for a moment.

In the first place we must have a clear appreciation of the duplex character of the reorganized state society. It will consist of: 1, a legislative or business body, called in most states the House of Delegates; 2, the scientific branch, which thus far has received no distinctive name, but which we may call the General Meeting.

THE HOUSE OF DELEGATES.

The House of Delegates is made up of duly elected representatives of the county societies. This body makes and amends the constitution and by-laws, transacts all the business, elects the officers, etc. It will, if it does its duty, see that laws affecting the profession are enforced, and will engage lawyers for this purpose. It will, if it thinks it ad-

visable, appoint committees to try to have the laws regulating medical practice made what they should be, to inquire into conditions affecting the profession and the public, and to aid the county societies to be of practical benefit to their members and to the profession. In a word, its function will be to represent and act for the profession of the state in every way as circumstances dictate, and as conditions require, and to spend money as may be necessary to accomplish these objects. In point of fact, and this should be clearly and distinctly understood, the House of Delegates of a state society is the state society in the eyes of the law. This being so, then it naturally follows that the members of the state society, strictly speaking, are those who are elected as such by the component societies. We realize that this is a quibbling with terms, and that few will be willing to acknowledge that the General Meeting is not the state society. We state the matter in this way, however, more to emphasize the importance of the legislative body in the eyes of the law over the General Meeting.

THE GENERAL MEETING, OR THE STATE SOCIETY.

The functions of the General Meeting are scientific, or educational and social, and are thus entirely distinct from those of the House of Delegates. The General Meeting transacts no business and spends no money, neither is there any expense connected with the meeting, except that which is incurred in getting up and circulating the program—a very small item. Usually the halls for the meetings are provided by the local profession, assisted or not by the citizens. In other words, there is so little expense connected with the General Meeting as a scientific body that practically no "state society dues" would be necessary to keep it up. (We purposely omit the consideration of the expense of publishing the papers and discussions, whether in journal or book form, leaving that for a future consideration.)

Who are members of this larger body, the state society or General Meeting, whichever title is preferred? Who has a right to attend its meetings? Under the new scheme of organization every member of every component society has a right to attend and participate in these meetings; in other words, is a member of the state society. No certificate will be required of a member of a county society when he attends the state society meeting, no formal application, only his name must be on the roster of the county society of the county in which he lives. One would think that there could be no objection to this. One of the great desires of those who have charge of scientific meetings, whether national, state or district, whether special or general in their character, is to have a large attendance. Consequently, the state societies in the past have striven in every way possible to get a large attendance, and even those who were not members were invited to attend the meetings, although they had no right to take part. Every respectable physician has been made welcome, and even a homeopath or an eclectic would not be ordered out should he happen in. No one will deny that it should be the object of the officers of a state society to get every physician in the state to attend its meetings, for the reason that it will be beneficial to all concerned. Neither the payment of dues nor going to the trouble of making formal application should be put in the way of those whose attendance is desired. The state society is not a select body, and never has been so considered. The majority of the states have always accepted, without reference to a committee or anything else, those who come delegated from a county society. The fact that they were members of such a society was satisfactory evidence that they were fit for membership. Hence, we can not understand that there can be any possible objection to allowing every physician who belongs to a county society to attend the General Meeting —the state society—without any formality.

The only objection is that referred to at the beginning of this article, namely, that certain members of county societies object to paying their share of the expenses. And yet how narrow, how selfish, and how unappreciative of his duties as a member of a great profession must be the physician who would refuse to contribute his share toward the sum required to carry on the work hinted at above, a work that is as much for his interest as for the good of any other member, whether he attends and gets the benefit of the scientific general meetings or not.

To recapitulate:

1. The House of Delegates is made up of those selected by the county societies, every member having a voice in this selection. It thus becomes the mouthpiece of the members of the county societies to voice their sentiments and to express their desires. At the same time, it does or does not, according to the wishes of the county societies, carry out certain works which require the expenditure of money. It is only right that every physician who has a choice in electing those who constitute the House of Delegates should pay his share of the money thus appropriated.

2. The annual meeting of the state medical society—the General Meeting—is a convention of the members of the county societies for social, scientific and educational purposes. Every member in good standing of a component society is a member of this state society, and has a right to attend, and participate in its deliberations. The expense connected with the general meeting is practically *nil.*

3. Since there is practically no expense connected with the annual meeting of the state society—the General Meeting—practically none of the "state society dues" will be needed for the purpose of paying such expense, and the "state society dues" will be used for the benefit of the profession of the whole state. Hence, because a physician never attends the annual meeting is no reason for his not paying his proportion of the funds used for the general good of the profession, himself included.

Vermont State Medical Society.

Commenting on the recent meeting of the Vermont State Medical Society, which was the first one held since that body was reorganized, the *Vermont Medical Monthly* says, editorially: "The House of Delegates provided by the reorganization, assumed the business of the society, and much satisfaction was felt for the new régime. All business was transacted smoothly and unobtrusively, without the slightest interference with the scientific work of the society. The personnel of the House of Delegates assures the success of the plan, for it is evident that the highest interests of the society are in safe hands."

Cass County (Mo.) Medical Society.

Pursuant to a call issued by Drs. Jacob S. Triplett and M. P. Overholser, Harrisonville, the physicians of Cass County met at Harrisonville, November 6, and organized a county medical society, in accordance with the rulings of the State Judicial Council. The following officers were elected: President, Dr. Harold Jerard, Pleasant Hill; vice-presidents, Drs. Frank B. Ellis, Garden City, and George E. Elly, West Line; treasurer, Dr. Aaron R. Elder, Harrisonville, and secretary, Dr. Jacob S. Triplett, Harrisonville. Cass County formerly was in the territory of the Hodgen Medical Association, composed of the counties of Cass, Bates and Vernon.

Cass County (Ill.) Medical Society.

The physicians of Cass County met in Virginia, November 13, and formed a county medical society. Dr. Carl E. Black, Jacksonville, called the meeting to order. The constitution and by-laws suggested for county societies by the American Medical Association were approved. The following officers were elected: President, Dr. James A. Glenn, Ashland; vice-president, Dr. George Bley, Beardstown; secretary, Dr. John A. McGee, Virginia, and treasurer, Dr. John G. Franken, Chandlerville.

Allegan County (Mich.) Medical Society.

The physicians of this county met at Allegan, November 6, and organized this society. Drs. William H. Haughey, Battle Creek; George W. Lowry, Hastings, councilors, and James M. Elliott, Hickory Corners, members of the Michigan State Medical Society, were present to assist in the work. The officers elected were: President, Dr. Walter H. Bills, Allegan; vice-president, Dr. Milton Chase, Otsego, and secretary and treasurer, Dr. William S. Albright, Allegan.

Ingham County (Mich.) Medical Society.

On November 13, the Central Michigan Medical Society met at Lansing and disbanded. The members immediately organized the Ingham County Medical Society, adopted the constitution and by-laws recommended by the American Medical Association, and elected the following officers: Dr. Sidney H. Culver, Mason, president; Dr. Harry A. Haze, vice-president, and Dr. L. Anna Ballard, Lansing, secretary and treasurer.

Medical Society of Renville-Chippewa-Lac qui Parle and Yellow Medicine Counties, Minnesota.

Physicians of these counties met at Granite Falls, October 22, with Dr. William S. Fullerton, St. Paul, state organizer, and formed this society, with the following officers: President, Dr. William M. Stratton, Granite Falls; vice-president, Dr. Charles E. Rogers, Montevideo; secretary, Dr. Eric O. Giere, Madison, and treasurer, Dr. Franklin J. Cressy, Granite Falls.

Oconto County (Wis.) Medical Society.

This society was formed, November 7, at Oconto Falls, and constitution and by-laws as laid down by the American Medical Association for county societies were adopted. Dr. Herman F. Ohswaldt, Oconto Falls, was elected president and Dr. A. S. White, Gillet, secretary.

St. Joseph (Mo.) Medical Society.

This society, at its meeting, October 29, adopted a new constitution and by-laws. The dues have been fixed at $4 a year, which includes the dues of the state society. It will be a branch of the Missouri State Medical Association.

Societies.

COMING MEETINGS.

Indian Territory Medical Association, Muskogee, Dec. 2-3, 1902.
Western Surgical and Gynecological Association, St. Joseph, Mo., Dec. 29, 1902.

The Tri-State Medical Association of West Virginia, Western Maryland and Pennsylvania will meet at Cumberland, Md., December 4. Dr. William Q. Skilling, Lonaconing, Md., is president.

Sanitary Convention of American Republics.—This convention will be held in Washington, D. C., beginning December 2, under the auspices of the governing board of the Bureau of American Republics.

Kanawha County (W. Va.) Medical Society.—At the annual meeting of this society, Dr. John T. Cotton was elected president; Dr. Harry H. Young, secretary, and Dr. Timothy L. Barber, treasurer, all of Charleston.

Sioux City (Iowa) Medical Association.—At the annual meeting of this body November 13, Dr. John P. Savage was re-elected president, Dr. John N. Warren elected vice-president, and Dr. Guy C. Rich, secretary and treasurer.

Congress of American Physicians and Surgeons.—The sixth meeting of the congress will be held in Washington, D. C., May 12, 13 and 14, 1903. Dr. William W. Keen, Philadelphia, is president, and Dr. William H. Carmalt, New Haven, Conn., secretary.

Sangamon County (Ill.) Medical Society.—At its annual meeting in Springfield, November 10, Dr. Albert L. Brittin, Athens, was elected president; Dr. B. Barret Griffith, Springfield, vice-president, and Dr. Percy L. Taylor, Springfield, secretary and treasurer.

Medical and Chirurgical Faculty of Maryland.—At the first session of the Section on Neurology and Psychiatry Dr. George J. Preston was elected president for the ensuing year. Dr. Henry M. Hurd read a paper on "The Future of the Care of the Insane in Maryland."

Hill County (Texas) Medical and Surgical Association.—At a meeting of this society in Hillsboro, November 13, Dr. James W. Miller, Hillsboro, was elected president, vice Dr. James J. Robert, resigned, and Dr. Andrew C. Saylors, Bynum, vice-president, succeeding Dr. James A. Adams.

Johns Hopkins Hospital Historical Club.—At the last meeting of this society Dr. Henry M. Hurd read a paper on "Thacher's Military Journal," and Dr. Eugene F. Cordell, a paper on "The Letters of Andrew Wiesenthal While a Student in London, 1786-1789." Dr. Cordell was elected president.

Inter-County (Wis.) Medical Society.—At the annual meeting of this society, held in Eau Claire, November 18, the following officers were elected: President, Dr. E. Lewis Fletcher, Eau Claire; vice-presidents, Drs. William B. Hopkins, Cumberland, and Frank W. Epley, New Richmond, and secretary and treasurer, Dr. Caroline Hedger, Eau Claire.

Frederick County (Md.) Medical Society.—At the annual meeting of this society in Frederick, the following officers were elected: President, Dr. Franklin B. Smith, Frederick; vice-presidents, Drs. Charles Goldsborough, Walkersville, and D. Edwin Stone, Mount Pleasant; recording secretary, Dr. Ira J. McCurdy, Frederick; treasurer, Dr. William C. Johnson, Frederick, and librarian, Elmer Fahrney.

California Northern District Medical Society.—At its twelfth annual meeting, held in Marysville, November 11, this society elected the following officers: President, Dr. Edward W. Hanlon, Marysville; vice-presidents, Drs. Harry W. Taggart, Stockton, Frank B. Sutliff, Sacramento, and Joseph T. Harris, Gridley; secretary, Dr. Elmer E. Stone, San Francisco, and treasurer, Dr. Oscar Stansbury, Chico.

Washington County (Md.) Medical Society.—This society, at its annual meeting in Hagerstown, November 12, elected the following officers: President, Dr. Japhtha E. Pitznogle, Hagerstown; vice-presidents, Drs. Christian R. Scheller, Hagerstown, and Charles D. Baker, Rohrersville; recording secretary, Dr. William B. Morrison, Hagerstown; corresponding secretary, Dr. James W. Humrichouse, Hagerstown, and treasurer, Dr. Hamilton K. Derry, Hagerstown.

Plant System Medical and Surgical Association.—The second annual meeting of the surgeons of the Plant System was held in Charleston, S. C., November 12 and 13. The following officers were elected: Dr. Roberts P. Izlar, Waycross, Ga., president; Drs. William D. Sutherland, High Springs, Fla., and Thomas S. Clay, Savannah, Ga., vice-presidents, and Dr. James H. Latimer, Waycross, Ga., secretary and treasurer. The association will meet next year in Jacksonville, Fla.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Fifteenth Annual Meeting, held in Cincinnati, Nov. 11-13, 1902.

Under the Presidency of Dr. W. E. B. Davis, Birmingham, Ala.

(Concluded from page 1340.)

McGraw's Method of Gastroenterostomy.

DR. SAMUEL LLOYD, New York, read a paper on his personal experience with this method. He reported 7 cases, all for cancer, except one, who had a gastric stricture due to adhesions. All recovered from the operation, but 4 died later from progress of the growth, without signs of obstruction. One died from involvement of the anastomotic opening in the cancerous growth, and consequent secondary closure of the new opening. The writer said that his experience showed the method to be efficacious and rapid. It had advantages over the button, in that the ligature, after it was tied, was extremely small and readily passed through the intestine, avoiding the danger of a heavy mass retained in an already diseased and ulcerated viscus, and that the opening in the stomach could be regulated to suit the case in hand.

The method was also applicable to the enteroenterostomies, which were made to avoid the vicious circle, and probably to cases of incomplete intestinal stenosis. It was not applicable to complete obstruction. Feeding could be commenced at the end of about forty-eight hours, and could be increased from day to day. He advocated in operating for pyloric obstruction, that from eight to ten ounces of peptonized milk and one ounce of whisky be introduced through a needle into the intestine below the point of the anastomosis during the operation.

The Surgery of the Lower Ureter.

DR. HUGH H. YOUNG, Baltimore, first described the topographic anatomy of the lower ureter.

The conditions requiring surgical treatment are as follows: Anomalies, as to number, location and condition; prolapse; ureteritis; calculus; neoplasm; valve formation; stricture; and fistula. The anomalous terminations into the uterus, vagina and vulva have been successfully transplanted into the bladder, but no similar operation is recorded in the male.

Prolapse of the ureter into the bladder is rare. Only 19 recorded cases have been found in the literature. Only 2

cases were operated on, and one died. The writer reported a case of his own.

Ureteritis in the lower ureter is not different from that in the upper, except that it is much more apt to lead to stenosis at the lower end. The changes observed on cystoscopic examination were discussed at length, with a report of the findings in several cases. Calculus impacted just above the bladder or in the intramural portion can generally be diagnosticated at once by the cystoscopic appearance of the orifice; congestion, bulging, stenosis, with prolapse of the papilla generally being present. Likewise, tuberculosis can be recognized. In lesions of even lesser degree the orifice generally gives evidence as to which is the affected side.

Fistula of the ureter may be congenital or acquired, the latter generally occurring in the female after labor or pelvic operations. Anastomosis of the divided ureters or implantation into the bladder should be done. The ureteral papilla and its immediate neighborhood in the bladder is a favorite seat for vesical tumors.

Calculi which have passed the two points of constriction of the upper ureter just below the renal pelvis, and at the crossing of the iliac vessels, are most apt to lodge at the vesical juncture, or at the intravesical end, although they sometimes lodge in the intramural portion, or in the para-ischial bend. In the female, the intraligamentous portion of the ureter is a favorite location for calculi, and numerous cases are on record in which they have been removed through the vagina.

In the male, only 20 cases in which calculi impacted in the deeper pelvic ureter had been removed by operation were found in the literature, and 10 of these were intravesical or intramural, and were removed through the bladder. In the other 10 the site of impaction was above the bladder, in some part of the pelvic course of the ureter. In one of these the stone was removed by incision through the rectum, with fatal result. In another, the incision was made in the perineum, the rectum pushed back from the prostate, the ureter exposed at its vesical juncture and calculus extracted. Fenwick, the author of this operation, claims that this is the method of choice in the male. In the other 8 cases the calculi were removed through the iliac extraperitoneal route, 5 by European operators, and 3 in Baltimore. In the 2 cases of the writer, the calculus was situated in the justo-vesical portion of the ureter, but was very easily removed by the iliac extraperitoneal route. Finney had a similar case.

As to choice of route, it was clearly demonstrated that for all stones in the pelvic ureter, the iliac extraperitoneal route was the best, with the possible exception of the last three centimeters of the ureter in the female, where the close proximity of the vagina made that route an easy one. The difficulty of suturing the ureter here, the inability to examine the kidney above, or to treat stricture below, and the frequent persistence of fistula afterward might yet prove that the iliac route was the best for all cases above the bladder in the female also. Stricture of the ureter was rare, and only those cases requiring more than dilatation with ureter catheters were on record.

Indications for Extirpation of the Gall Bladder.

DR. MAURICE H. RICHARDSON, Boston, read a paper on this subject, in which he drew the following conclusions:

1. New growths and gangrene demand removal of the gall bladder whenever possible.

2. Contracted, thickened and inflamed gall bladders and all which do not permit of easy and efficient drainage should be extirpated, for in such cases the risks of drainage are as great as of extirpation.

3. Drainage is preferable in the dilated and infected or slightly thickened gall bladder containing stones and infected bile. This will, after drainage, become capable of fulfilling the functions again.

4. As a rule, drainage rather than extirpation is demanded in acute cholecystitis with severe constitutional symptoms, when the bladder is dilated or at least not contracted.

5. In chronic infections with dilatation and thickening, especially when a stone is impacted in the cystic duct, extirpation is preferable unless the stone can be dislodged backward into the gall bladder, in which case drainage is, if not preferable, quite as advantageous as extirpation.

6. In simple gallstones, without visible evidence of infection, or of chronic changes incompatible with complete restoration of function, simple drainage is indicated.

7. In chronic pancreatitis, associated with gallstones or not, drainage through the gall bladder is indicated.

DR. ALEXANDER HUGH FERGUSON, Chicago, described a new method of anterior transplantation of the round ligaments for displacements of the uterus.

DR. GEORGE H. NOBLE, Atlanta, presented a paper on intramural extraperitoneal anchorage of the round ligaments for posterior displacements of the uterus, describing a new method for the relief of these displacements.

Fixation of the Round Ligaments.

DR. F. F. SIMPSON, Pittsburg, described a method of changing the course of the round ligaments from transverse to nearly an antero-posterior direction; in shortening the round ligaments, so that the weak part is left as slack, the strong part being used to control the movements of the uterus; finally, and especially in effecting these changes beneath or by puckering the parietal peritoneum, thus leaving no bands of adhesions, and no pockets which may strangulate an intestine.

Gas Bacillus Infection.

DR. ROBERT T. MORRIS, New York, reported three cases. The first was 46 years of age, on whom he operated for uterine myoma. The next day signs of infection appeared. On the third day he examined the abdominal wound and found it had healed by primary intention. The subcutaneous tissues on the right side of the abdomen were distended with gas, which was unassociated with tenderness, but on the fourth day caused great distress. He had no bacteriologic report. The patient died on the seventh day. In the second and third cases specimens submitted for examination showed pure cultures of what appeared to be the *Bacillus aerogenes capsulatus*. These two recovered.

DR. ALEXANDER H. FERGUSON detailed two cases. He said the *B. aerogenes capsulatus* had its habitat in the soil, and was not unlike *B. tetanus*, microscopically. It is not a pyogenic organism, as was proven by Welch and Nuttall, who made extensive experiments with it. It is the *B. emphysematosus* of the Germans. It finds its way into the body on greens, cabbage, etc., and one important point is to clean out the alimentary canal to get rid of it. Another important point is that it finds its way into the wound from the fingernails, hence the great importance of scrubbing the nails.

DR. J. WESLEY BOVÉE had encountered three cases following removal of the appendages for pus. One died. Autopsy showed the gas bacillus in various portions through the viscera, and particularly in the liver and skin.

Prolapse of the Uterus.

DR. CHARLES R. ROBINS, Richmond, Va., said the uterus is normally maintained in position by a combination of elements, and not by any one. These are integrity of the pelvic floor, making the pelvis a closed cavity, the uterus being of the same density as the other pelvic viscera, the position of anteversion and the tonicity of the abdominal walls. A departure from any one of these may cause prolapse, and where several are concerned, it is most frequent. Successful treatment can not depend on any one procedure, but it must meet all of the pathologic conditions present. Proper preliminary treatment is of the utmost importance. The operative treatment recommended consisted of amputation of the cervix, operation for cystocele, perineorrhaphy, and an operation for maintaining anteversion. This treatment not only cures prolapse, but restores function. If relapse occurs, Edebohls' panhysterokolpectomy seems to be the only operation for effecting a cure.

Diseases of the Ribs Following Typhoid Fever.

DR. J. SHELTON HORSLEY, El Paso, Texas, reported a man of 40 years, in whom disease of the left sixth and seventh costal cartilages, the anterior end of the sixth rib, and part of the sternum developed a few weeks after typhoid. The abscess

had been opened, and later the resulting sinus curetted before the patient came under Dr. Horsley's care. Then two extensive resections, involving a portion of the sixth rib, the costal cartilage of the sixth and seventh ribs and part of the sternum had to be performed before a complete cure was effected.

He called attention to five peculiarities that distinguish post-typhoid disease of the ribs from similar affections of other bones: 1. The marrow of the ribs is a particularly favorite seat for the typhoid bacilli. 2. The superficial position of the ribs and their continuous movement make a *locus minoris resistentiæ* more liable here. 3. Necrosis of the ribs is rare, of other bones, not. 4. Post-typhoid disease of the ribs invariably occurs in adults. 5. Thorough operative treatment is more difficult in the case of the ribs than of most other bones.

A table of 48 cases consisted of 41 men and 7 women. This is accounted for by men being more often subject to typhoid, and also by the fact that, owing to the mammæ, the blood supply of the ribs is better in women.

Conservative treatment was advised in mild cases. If this should be unsuccessful, incision and curettage were advocated; and if, after a few weeks, the wound had not healed, extensive resection, going well into apparently healthy bone, should be practiced. Dr. Horsley also demonstrated a new holder for Gigli saws.

Renal Calculi.

Dr. Mack Rogers, Birmingham, Ala., confined himself to the diagnosis and treatment. He reported two cases and said the clinical history, pain, tenderness, swelling and condition of urine were the chief guides in diagnosis.

Endometritis.

Dr. H. J. Boldt, New York, said that the glandular, interstitial and mixed varieties form the basis of all variations of the disease. He outlined the differences between the varieties. The local treatment giving the promptest relief from bleeding in chronic endometritis is undoubtedly the judicious use of the curette. The operation should be done by one trained in gynecologic technic, because serious results frequently follow its improper employment. It is imperative that a careful bimanual examination be made previously, to determine whether or not a tubal swelling is present. Boldt had known tubal pregnancy and pyosalpinx to be ruptured by the operation. The same precautions as to cleanliness should be employed as in a major operation. In the writer's experience, about 60 per cent. were relieved from atypical bleeding for a variable period of time.

Good food, proper exercise, baths, douches, medicated or plain warm water are all important adjuvants to the treatment. After the endometritis has become chronic, it should be treated with intrauterine applications of one of the usual remedies. Dr. Boldt preferred a 10 per cent. solution of carbolic acid. Frequent intrauterine irrigations with large quantities of a mild antiseptic solution also give good results.

The Electric Cautery Clamp in the Treatment of Cancer of the Uterus.

Dr. Charles P. Noble, Philadelphia, said the electric cautery clamp is a highly perfected and practicable instrument whereby it is entirely feasible to burn the attachments of the uterus and to leave not only a bloodless field, but one in which the lymphatics are sealed by a thorough cooking or roasting process. Hysterectomy thus performed possesses all the advantages of previous methods, and has in addition certain special advantages: More tissue outside of the uterus is removed or cooked than by the classical methods. All the connections of the uterus are either severed through tissue cooked in the bite of the cautery clamp, or severed with the electric cautery knife. The lymphatic vessels are sealed. Risk of implantation of cancer on the field of operation is greatly lessened. (An exception to the above statements must be noted, in that the attachments of the bladder to the uterus are severed in the usual way.) Much less blood is lost than is usual with the classical technic. A dry, bloodless field is left.

Dr. Noble said Dr. A. J. Downes, Philadelphia, adopted the theories of his predecessors, and developed a thoroughly practicable electric cautery clamp. Dr. Downes uses the method wherever there are pedicles to deal with, having abandoned the ligature in favor of the cautery clamp.

The technic was described in detail. [See description and illustrations in The Journal, July 12, 1902, p. 75.]

The essayist has operated five times by this method.

In closing, the essayist said that some years must elapse before the actual value of the clamp could be determined, but it was reasonable to expect a larger percentage of cures than the older methods, more especially in cancer of the cervix.

Other Papers Read.

The following papers, whose authors were present, were read by title, owing to the limited time at the disposal of the association: "A Case of Ovarian Fibroma," by Dr. H. A. Royster of Raleigh, N. C.; "Fracture of the Spine, with Report of Three Cases," by Dr. Howard J. Williams of Macon, Ga.; "Spinal Analgesia," by Dr. E. D. Martin of New Orleans, La.; "The Treatment of Posterior Uterine Displacements," by Dr. Edward McGuire of Richmond, Va., and "Dependent Drainage in Acute and Extensive Intra-Pelvic and Intra-Peritoneal Infection in Men by Incising the Perineum Separating the Rectum from the Prostate and Bladder, and Puncture of the Recto-Vesical Pouch of the Peritoneum," by Dr. Hugh M. Taylor of Richmond, Va.

BUFFALO ACADEMY OF MEDICINE.

Regular Meeting of the Medical Section, held Nov. 11, 1902.

Dr. Albert E. Woehnert in the Chair.

Medical Discoveries by Non-Medical Men.

Dr. George M. Gould of Philadelphia read a paper with this subject. He alluded to that grand sanitarian, Moses, and the effects of the Mosaic laws on the preservation of the Hebrew race. He quoted many paragraphs from the Bible to illustrate that medicine and hygiene must have been well known in biblical times, even bubonic plague and leprosy were well described. He spoke of the many therapeutic measures used even to-day referred to in the Talmud. We are just beginning to realize the truths of the Mosaic laws.

Reference was made to the Persians who regard the rivers as sacred and who do not bathe nor empty sewage into them.

He credited one Benjamin Jesty, a Gloucestershire farmer, with being the first to perform vaccination, preceding Edward Jenner by no fewer than twenty-two years. He quoted to show that the mosquito theory as to the cause of malaria was known many years, that many savage tribes used to anoint their bodies in order to protect themselves from the bite of the mosquito, and that even a report bearing on the relation of the mosquito to malarial fever was once sent to the naval department and no attention paid to it.

The relation of rats to bubonic plague is also a truth which was known from time immemorial. It was demonstrated that many times the observations of laymen precede medical discoveries and that on the observations of Zadik's, as well as the interpretation of characters like the mythical Sherlock Holmes will depend future discoveries as much as to the laboratory workers.

Care of Epileptics.

Dr. William P. Spratling, superintendent of Craig Epileptic Colony, Sonyea, N. Y., read a paper, illustrated by 56 stereopticon views, on how epileptics are cared for and treated at that institution. He spoke of two classes of colonies, (1) for selected cases, (2) for all epileptics save the insane. He prophesied that in the future every city of over 500,000 inhabitants will have its own colony for epileptics. In building an epileptic colony attention must be given to an epileptic's pecularities, the difference of age, sex, social status, mental condition, etc.

Craig Colony for Epileptics represents the mixed type of colony, for its inhabitants comprise every variety of epileptic, from the epileptic of normal mind (5 per cent.) to the insane and idiotic. The epileptic must be suitably employed; 50 per cent. of them at the colony work; 25 per cent. do light house work. A colony must be well equipped for all industries, for there are many artisans who come to it.

It is necessary to educate the epileptic, and the earlier, therefore, an epileptic comes to the colony the better will the results be. There is a tendency for each recurring epileptic paroxysm to disorganize the brain and the memory is necessarily affected. Repetition is therefore a necessity in their education. The muscular education gives better results than education of the mind, so that manual training is employed to advantage at the colony.

The treatment is divided into (1) medicinal, (2) surgical, (3) dietetic and (4) moral. Nothing can be said of the medicinal treatment in a paper such as this. Every rational treatment is employed. Salt starvation (hypochlorization) is used with good results. Surgical operations are performed by the house staff at the colony. Brain surgery has not proven very successful. The ancestral history is carefully worked out in every case to ascertain an epileptic taint. Such cases are not operated on. Only when a focal lesion is present can an operation give good results.

Abdominal surgery is also performed with satisfactory results. Lately the eyes of many patients were examined for errors of refraction. Many patients refracted are much the better for the treatment. The dietetic treatment is carefully attended to. The epileptic must be recognized as a degenerate and discipline gently applied.

Dr. Spratling summarized his paper briefly as follows: 1. The colony treatment cures better than other forms of treatment. 2. It reduces the attacks. 3. It provides special education to make patients more helpful. 4. Promotes individual happiness. 5. Encourages research and provides for best treatment. 6. The segregation of such people has an economic value to the state, for it prevents handing down a defective progeny.

The paper was discussed by Drs. James W. Putnam, William O. Krauss and Allen O. Jones.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Hemoptysis.

Hare, in *Med. News*, states that there is no doubt that of all the internal remedies for hemorrhage of the lungs, aconite is the best. If the patient is too much exsanguinated to use sedatives, place the head lower than the feet and apply an Esmarch bandage to the limbs. If the hemorrhage is just beginning, the following may be inhaled from an atomizer throwing a fine spray:

℞.	Liq. ferri subsulph.	m. xx-xxx	1.30-2
	Aquæ destil.	℥iv	120

M. Sig.: To be sprayed and inhaled every few minutes; or:

℞.	Acidi tannici	gr. xx	1
	Glycerini	℥ii	8
	Aq. destil. q. s. ad	℥iii	90

M. Sig.: In atomizer; or:

℞.	Aluminis	gr. vi	40
	Aq. destil.	℥iii 90	

M. Sig.: In the atomizer. He states that if Monsel's solution does not stop the hemorrhage tannic acid will probably fail; but, more important, the two should not be used together, as they are incompatible, forming the tannate of iron.

Medical Treatment of Tuberculosis.

Dr. J. Shoup, in *Amer. Med.*, states, in the treatment of tuberculosis, that the following drugs should be selected:

1. Those drugs which promote metamorphosis, which results in healthy tissue construction. In this class he mentions iron, arsenic, strychnin, phosphorus and vegetable tonics.

2. Those drugs which are bactericidal in their action, and being eliminated by the lungs tend to attack the disease *in situ*. Creosote is taken as the type of this class given in large doses. However, he states that creosote given by inunction, inhalation, or enema has its drawbacks. When it is given by inunction the odor becomes too disagreeable, and the irritation becomes unendurable; by inhalation it is too irritating and not so efficacious as the essential oils; by enema it soon becomes obnoxious to the patient, and by intratracheal injection it succeeds in checking the cough and partially deodorizing the sputum. He prefers guaiacol on account of its being less disagreeable to the patient. It is not so liable to cause gastric distress, and is quickly assimilated. Guaiacol carbonate is usually given, but guaiacol valerianate is an admirable remedy in nervous cases and is well borne. He has discontinued the use of ichthyol because of the disagreeable eructations and nausea of the patient. Its action is dependent on the sulphur it contains, and the author sees no reason why sulphur can not be given as such.

3. Those drugs which stimulate phagocytosis. This includes the serums and other medicinal agents as cinnamic acid, which may be given in combination with arsenic, as follows:

℞.	Acidi arsenosi	gr. x	65
	Potass. carb.	gr. xvii	1 12
	Acidi cannamici	℥ss	2
	Boiled with aq. destil. q. s. ad	℥i	30
Add:			
	Ext. opii (aqueous)	gr. xxx	2
	Vini gallici	℥ss	15
	Aq. destil.	℥ii	60

M. Sig.: Begin with three drops after lunch and after dinner and increase to twenty drops.

Tubercular Laryngitis.

G. L. Richards, in *Internat. Jour. of Surgery*, recommends the following formulæ in the form of insufflations in the treatment of tubercular laryngitis:

℞.	Morphinæ sulph.	gr. v	30
	Iodoformi	℥iii	12

M. Sig.: A small amount to be insufflated by means of a powder blower; or:

℞.	Morphin. sulph.	gr. 1/30	002
	Hydrarg. chloridi mit.	gr. xx	1 30
	Sacch. lactis	gr. xl	2 65
	Bismuthi subnit.	gr. xl	2 65

M. Sig.: To be used as an insufflation. He states that intratracheal injection of guaiacol, menthol and orthoform, as in the following formulæ, frequently afford relief and possibly retard the progress of the disease:

℞.	Menthol.	gr. xxx-℥iiss	.2-10
	Ol. amyg. dulcis.	℥i	30
	Vitelli ovi	℥vi	24
	Orthoformi	℥iii	12
	Aquæ destil	℥iii	90

M. Ft. emulsio. Sig.: To be used on a swab or in an intratracheal syringe, preferably the latter; or:

℞.	Camphoræ		
	Menthol.		
	Guaiacol, āā	gr. xlviii	3 20
	Olei olivæ q. s. ad	℥ii	60

M. Sig.: To be introduced with the intratracheal syringe during inspiration.

Treatment of Epididymitis.

Bandoy, according to an abstract in *N. Y. Med. Jour.*, recommends for the local treatment of epididymitis continued moist medication with a sterilized solution of sodium chlorate. The use of ice has the objection of causing induration that may lead to obliteration of the vas deferens. When the acute initial pain has been subdued, sitz baths repeated four or five times daily, lasting from fifteen to twenty minutes at least, and finally for forty-five minutes, should be employed, continuing also the use of moist compresses. As soon as the sensitiveness has been diminished so as to allow of light massage, frictions with resolvent ointments can be made, twice daily after the bath for fifteen minutes:

℞.	Tinct. iodi	gtt. xv	1
	Pot. iodidi	gr. xxx	2
	Petrolati	℥v	20

M. Sig.: Apply locally twice a day.

Internally one gram (gr. xv) of potassium iodid should be given daily. By following this plan accurately one obtains

more surely than by any other method, a satisfactory retrogression of the inflammatory infiltration and complete restoration to the normal condition.

Bronchitis.

According to Musser in *Nothnagel's Encyc. of Med.*, bronchitis frequently begins with an acute cold in the head, coryza, and perhaps pharyngitis, with symptoms of general malaise, fever and muscular pain. There are also cases with laryngitis rapidly extending to the bronchi and others beginning primarily in the bronchi. In the first class, if there is much headache and frontal pain, he recommends the following:

℞. Camphoræ	gr. i	06
Ext. belladonnæ	gr. i-iss	06-09
Quininæ sulph.	gr. i-ii	06-12
Morph. sulph.	gr. 1/40	005

M. Fiat. capsula No. i. Sig.: One such capsule every half hour for four doses. Then one every three hours.

If the patient should suffer from myalgia, chest oppression, tight cough, one of the following combinations is recommended:

℞. Quininæ sulph.	gr. i-ii	06-12
Pulv. opii et ipecac.	gr. i	06
Acetanilidi	gr. i	06

M. Ft. capsula No. i. Sig.: Take two such capsules at once, two in two hours, then one every three hours; or:

℞. Mist. potassii cit.	℥iv	120

Sig.: One tablespoonful every two hours; or:

℞. Potassii iodidi	gr. xlv	3
Vini ipecacuanhæ	℥ii	8
Mist. glycyrrhizæ co. q. s. ad	℥iii	90

M. Sig.: One teaspoonful every two or three hours.

If the cough is harassing, 1/30 to 1/12 (.002-.005) grain of heroin may be added to the dose in any combination.

The following serves well to relieve the cough and oppression:

℞. Syr. ipecac.		
Syr. sanguinariæ		
Syr. scillæ, āā	℥ii	8
Syr. pruni virg. q. s. ad	℥ii	60

M. Sig.: One half to one teaspoonful every two or three hours.

In the later stages ammonium chlorid, terpin hydrate, terebene and tar preparations are recommended:

℞. Ammon. chloridi	℥i	4
Terpin. hydratis	℥i	4
Pulv. opii et ipecac.	gr. xxiv	1 65

M. Ft. cap. No. xxiv. Sig.: One or two, according to the age, every two or three hours.

In the above, if the cough is easy and the expectoration free the opiate may be withheld.

The following is of service to meet the general indications in bronchitis:

℞. Ammon. chloridi	℥i	4
Vini picis liq.	℥iss	6
Mist. glycyrrhizæ co.	℥iss	45

M. Sig.: Two teaspoonfuls every two or three hours.

The author very justly adds that stimulants, as strychnin, keep up blood pressure and arterial congestion and hence tend to aggravate the bronchitis present. However, should venous hyperemia exist their use is justifiable.

A New Method of Extracting Foreign Bodies from the Ear.

There is no more delicate and even difficult task, so states the *Med. Press*, than the extraction of a foreign body from the external auditory canal. Irrigation often fails to bring it away, and in certain cases adds to the difficulty by causing the object, a pea for instance, to swell and become more firmly impacted. The employment of instruments is very painful and requires considerable dexterity, besides supposing an armamentarium specially designed for the purpose, which few general practitioners possess. The recommendation is made of a piece of soft rubber tube, the length of a cigarette and of the proper size, to be introduced into the ear. The end of the tube is dipped in paraffin and pushed into the canal until it comes in contact with the foreign body, whereon the operator, applying his mouth to the free end, aspirates forcibly, at the same time throwing back his head. Except in cases of angular bodies of irregular contour this method is usually attended by success, the body coming away with the tube.

Medicolegal.

Three Thousand Dollars for Fracture of Femur.—The Supreme Court of Iowa holds, in the personal injury case of Beringer vs. Dubuque Street Railway Company, that, in view of the character of the injury—the head or neck of the femur being fractured—and the evident pain and suffering caused thereby, a verdict for $3000 was not excessive.

Physician Must Show Prior Appropriation for Services.—The Nebraska case of De Wolf vs. Village of Bennett was brought by a physician to recover for services rendered in taking charge of a smallpox patient. He alleged in his petition that he was duly authorized by the State Board of Health to practice medicine and surgery in the state and had filed his certificate; that the village was a duly organized municipal corporation; that it was authorized by statute to provide pesthouses, to prevent the introduction and spread of contagious diseases, and to make contracts and incur expenses for that purpose; that on or about a given date a certain party was afflicted with smallpox, and the other residents of the village were in danger of contracting the disease; that the village, acting by and through its trustees, established a pesthouse, and requested him to remove the party thereto and to take charge of and treat the case, and prevent the spread of the disease, for all of which, through its trustees, it agreed to pay him, in pursuance of which he rendered the services sued for, which were accepted and received by the village, and by the trustees without objection; that he made the fair and reasonable charge of $104 therefor, presenting his account to the village, and filing same with its board of trustees, demanding payment, which was refused. To this petition a general demurrer was interposed, the village contending that it was necessary for the physician to plead the contract, and that the proper preliminary proceedings had been taken by the village board, showing that an appropriation had been made, because, without such appropriation, the village had no authority to make contracts or create liabilities like that involved in this case. The demurrer was sustained, and the Supreme Court of Nebraska holds that this was proper, the claim on which the case rested being one for which a prior appropriation was essential.

Libel of Physician by Calling Him a "Quack."—A newspaper said that a certain candidate for office might as well give up the fight. It had supposed that he had at least a fighting chance, if not an absolutely sure thing. "But," it continued, "here comes 'Doctor' Ralph Elmergreen, the spick and span practitioner, who says that it's all off, and that all the powers of hades can't prevent Sam's re-election. The burden of the doctor's refrain is vindication—for Sammy. It appears that some untruthful Democrat misquoted Sam's Hartford speech, particularly that portion of it concerning the regulation of trusts. We do not know what Barney said about trusts; neither do we care. Sufficient be it that we do not look to a quack to set us right in the matter. . . ." An action for libel followed. Evidence was produced on behalf of the party sued, who was the editor, publisher and proprietor of the paper, to the effect that he knew that the party suing was a physician and surgeon, but that he had no intention of injuring him in his professional capacity. There was also evidence introduced on behalf of the publisher in regard to the various dictionary definitions of the word "quack." The result was a verdict and judgment for the publisher. But this last is reversed by the Supreme Court of Wisconsin, and a new trial ordered. It says, Elmergreen vs. Horn, that it was correctly ruled that to speak of a physician in his professional capacity as a "quack" is to call him a mere pretender, a person boasting of attainments he does not possess, and is libelous as a matter of law. It was further correctly ruled that in a case of this kind if there are conflicting reasonable inferences as to whether the alleged libelous language should be understood in

a libelous sense, the right of the matter must be determined by a jury. The trial judge concluded that there was such a conflict in this case, and refused to give instructions to the jury in effect, taking away from it the question of whether the article complained of was libelous *per se*, or in and of itself; and that is what the Supreme Court holds was reversible error. Candor, it declares, compels it to say that it can not discover any doubt, approaching the boundaries of reason, as to whether the term "quack" was used with reference to the party suing in his capacity as a physician and surgeon. Taking the language all together, with the same certainty as it referred to him as doctor, it referred to him as a quack doctor, as a mere pretender in his profession, a person not possessing the skill of a reputable practitioner of medicine, though assuming to have such skill. Note, it says, for one thing, the significance of the inclosure of the word "Doctor" in quotation marks, indicating that the writer wished to dignify him by the title of doctor in no other sense than that he was so called or held himself out to the world as such. And finally the Supreme Court says that it would be a waste of time to multiply words in demonstrating that the only meaning suggested by reading the article in question was that the party suing was referred to therein as a quack doctor. If the learned circuit judge had not considered the matter doubtful, the court would feel that one could not seriously present it for consideration from the standpoint of the party sued. That the judge erred in submitting the primary question of the latter's liability to the jury, the court regards so clear that it is not justified in saying more.

Venereal Disease as Evidence of Rape.—The Supreme Court of Iowa says, in the case of State vs. Height, that a prosecution for rape on a child 10 years of age, the evidence tended to show that the latter did not make complaint until about 11 days after the alleged outrage, and then, on examination by physicians, was found to have venereal disease. To show that at the time of the alleged intercourse the accused was afflicted with the same disease, which he might have communicated to the child, there were called as witnesses certain physicians who had examined the private parts of the accused while he was confined in jail under arrest for the crime charged, and who found that he then had, or had recently had, the disease in question. For the accused it was contended that this physical examination of him was made against his protest, and, further, that the testimony of these physicians was with reference to a privileged communication. But the court suggests that it was enough to say in answer to this last contention that the physicians were not called by the accused, nor did he, even if he submitted to the examination, do so with the idea that the physicians making it were acting as his physicians. The objection to the testimony that it disclosed a privileged communication was therefore not well taken. Again, it was urged that the testimony related to a confession by the accused which was not voluntary, and that the evidence should have been excluded for that reason. The court replies that the accused made no confession of guilt, nor admission that he was afflicted with the disease for which he was examined, and that it has been well settled by decisions without conflict, that, even though a confession be involuntarily made, inculpating facts discovered by means thereof may be established against the accused. Consequently, there was nothing in the rule excluding involuntary confessions to prevent the physicians who made the examination of the person of the accused from testifying to his condition with reference to having venereal disease. However, inasmuch as the examination by physicians was made under the direction of the prosecuting attorney, and was at first resisted by the accused, who finally consented thereto, if at all, only after he had been told by one of the officers who made the arrest, and who was present, acting under the direction of the county attorney, and in his presence, that the state had the right to require such an examination to be made, and that the accused must submit to it, the court holds that this was amply sufficient to indicate legal duress, and that evidence secured by such duress, and which could not have been secured otherwise, was inadmissible over the objection of the accused. In other words, it holds that the officers acted unlawfully in compelling the accused to submit to this examination, and that all evidence with reference to information secured thereby should have been excluded on his objection. It takes this position, notwithstanding there is no such provision in the Iowa constitution as in some others to the effect that the accused in a criminal prosecution shall not be compelled to be a witness against himself. The court further holds that if on a retrial there should be competent evidence that the accused had venereal disease at the time of the connection with the prosecutrix, evidence—if any were brought forward—of her having had sexual connection with others near the same time should be admitted to show that the disease might have been contracted by her from other sources.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine (Philadelphia), November 15.

1 *An Infectious Form of an Eczematoid Dermatitis. Martin F. Engman.
2 *The Surgical Anatomy of the Middle Ear; A Factor in Favor of Early Interference in Suppurative Affections (with Demonstrations). Emil Amberg.
3 Ankylostomiasis, the Most Common of the Serious Diseases of the Southern Part of the United States. H. F. Harris.
4 *The Accidents of Anesthesia: Their Prevention and Treatment. Daniel N. Eisendrath.
5 *The Relation between Pernicious Anemia and Achylia Gastrica. Harry Adler.
6 *Practical Deductions from Experiences in a Hospital for Pulmonary Tuberculosis. B. F. Lyle.
7 Altitude in Fact and Fancy. Henry Sewall.
8 Professor John Berg's Surgical Clinic. Nicholas Senn.

Medical News (N. Y.), November 15.

9 *Climatology of California. Alexander McAdie.
10 *The Climate of the Eastern Foothills of Southern California. C. A. Sanborn.
11 *The Climate of Maine. Guy Hinsdale.
12 *Lacerations of the Uterine Cervix and Their Sequelæ. Charles H. Bushong.
13 The Influence and Value of Organization. George W. Miles.
14 Uric Acid in the Blood and Tissues as a Cause for Certain Stomach and Intestinal Troubles. Freeman F. Ward.
15 Gunshot Wounds of the Chest and Abdomen from a Military Standpoint. Louis A. LaGarde.
16 Medical Treatment of Cholelithiasis. R. Alexander Bate.

Medical Record (N. Y.), November 15.

17 *The Primary New Growths of the Pleura. Francis Delafield.
18 *The Present Status of Radiotherapy in Cutaneous Diseases and Cancer. Charles W. Allen.
19 Biogenesis and Heredity. Raymond Wallace.
20 *The Criminal Responsibility of the Epileptic. John Punton.

New York Medical Journal, November 15.

21 *The President's Address Delivered at the Fifteenth Annual Meeting of the American Association of Obstetricians and Gynecologists. Edwin Ricketts.
22 *Pathology and Treatment of Epilepsy. (Concluded.) William H. Thomson.
23 *A Case of Ringworm of the Face and Two of the Scalp Contracted from a Microsporon of the Cat; with Some Observations on the Identification of the Source of Infection in Ringworm Cases by Means of Cultures. A. D. Mewborn.
24 Depressed Fracture of the Malar Bone, with Report of Three Cases. Stewart LeRoy McCurdy.
25 *Experimental Investigations with Roentgen Rays upon Living Tissue. J. Rudis-Jicinsky.
26 Studies on Heredity. Raymond Wallace.

Philadelphia Medical Journal, November 15.

27 *Some Points in the Treatment of Post-operative Abdominal Cases. John B. Deaver and George P. Müller.
28 Aneurism of the Ascending Portion of the Arch of the Aorta, Manifested Early by Intractable Intercostal Neuralgia; Also Report of a Case of Aneurism of the Abdominal Aorta; Rupture and Death. William C. Krauss.
29 *The Diet in Typhoid Fever. William E. Robertson.
30 *Foreign Bodies in the Vermiform Appendix. James Bell.
31 The Microscopic and Chemical Factors in Determining the Functional Condition of the Kidney. Louis Heitzmann.
32 A Case of Severe Dermatitis Following the Use of Mercurial Ointment. Lawrence E. Holmes.

Boston Medical and Surgical Journal, November 13.

33 Barber-Surgeons. Frederic W. Taylor.
34 *The Clinical Study of 485 Cases of Nail Disease. Charles J. White.
35 A Probable Myxofibroma of the Nose. Seabury W. Allen.
36 Gunshot Fatality: Source of Shooting Proved by an Examination of Ammunition. O. J. Brown.
37 A Fatal Case of Mandrake Poisoning. A. W. Buck.

Cincinnati Lancet-Clinic, November 15.

38 A Correct Report of the Case of Henry Krause, the Matricide. Charles J. Aldrich.
39 Two Cases of Eye-strain—Asthenopia. Mark D. Stevenson.
40 Dr. Hyrtl, the Noted Anatomist, and the Village Church. J. C. McMechan.

41 Surgery of Prostate, Pancreas and Diaphragm. (Continued.) B. Merrill Ricketts.

St. Louis Medical Review, November 8.

42 The Importance of Consideration of Habit in the Treatment of Sleeplessness. Wm. Wormley.

Medical Fortnightly (St. Louis), November 10.

43 *The Pathological Status of Retroverted Uteri. W. T. Tichenor.
44 *Digestive Disorders in Consumption with Mixed Infections. Paul Paquin.
45 The Protection Against Smallpox by Successful Vaccination. Marcus H. Thomas.

Medical Age (Detroit, Mich.), November.

46 X-Ray Apparatus and X-Ray Methods and the Lines Along Which Progress Has Been Made. Eugene R. Corson.
47 The X-Ray Treatment of Cancers. John W. Daniel.
48 Mercurol as a Cholagogue Laxative. H. E. Sauer.

Virginia Medical Semi-Monthly (Richmond), November 7.

49 *Treatment of Typhoid Fever with Castor Oil. C. C. Bass.
50 Gastrectomy with Report of Two Cases. Albert Vanderveer.
51 The Subcutaneous Injection of Paraffin for the Correction of Deformities, with Report of Cases. Junius F. Lynch.
52 Climatic and Electric Peculiarities of Colorado Favoring Recovery in Pulmonary and Other Diseases. J. E. MacNeill.
53 Necrosis of the Tibia as a Result of Typhoid Fever. John W. Shaw.
54 *Diagnostic Points of Difference between Spermatorrhea and Seminal Pollutions. F. R. Sturgis.
55 The Proper Use of Vaginal Pessaries. J. Wesley Bovée.

St. Paul Medical Journal, November.

56 A Case of Cerebellar Tumor with Escape of Cerebrospinal Fluid Through the Nose. Arnold Schwyzer.
57 A Brief Résumé of Brain Tumors, with Report of Two Cases. George E. Sherwood.
58 Chlorosis. George D. Head.
59 Pneumonia. T. L. Hatch.
60 The Study of Internal Medicine. John W. Bell.
61 Suppuration of the Pervious Urachus. R. C. Dugan.
62 Report of Two Cases of Hemorrhagic Scarlet Fever and a Probable Third. Walter R. Ramsey.

The Quarterly Journal of Inebriety (Hartford, Conn.), October.

63 *Dangers from the Indiscriminate Use of Morphia. T. D. Crothers.
64 *The Basis for the Use of Alcohol in Therapeutics. A. R. Cushing.
65 *The Toxicity of Methyl Alcohol. Reid Hunt.
66 The Law and the Inebriate; with Remarks on the Treatment of Inebriety. Joseph Collins.
67 How Can We Best Combat the Alcohol Evil? John Madden.
68 The Effects of Nicotine. Jay W. Seaver.
69 Alcoholic Psychoses in Women. H. E. Sanderson.
70 Alcoholic Amaurosis. Frank Van Fleet.

Denver Medical Times, November.

71 A Brief Statistical Report of Abdominal Cases Operated on Since Jan. 1, 1898. I. B. Perkins.
72 *Septicemia and the Curette. H. Plympton.
73 Surgical Remarks Regarding Appendicitis—Report of Cases of Vaginal Ovariotomy—Osteomyelitis of the Tibia—Complete Rectal Fistula and Appendicitis. Harlan Trask.
74 The Utility of the Genital Vascular Circle or Circle of Author. Byron Robinson.

American Gynecology (N. Y.), October.

75 *Preliminary Report of Some Observations on the Blood of Pregnancy and the Puerperium. George R. Pray.
76 Ectopic Gestation Considered Clinically. F. A. L. Lockhart.
77 *Intra-abdominal Shortening of the Round Ligaments Per Vaginam for the Cure of Retrodisplacements of the Uterus. J. Riddle Goffe.
78 Removal of the Urinary Bladder for Cancer, with Report of a Case. A. Lapthorn Smith.
79 *Are Ventrofixation and Ventrosuspension of the Uterus Justifiable Operations? Henry J. Kreutzmann.

Indiana Medical Journal (Indianapolis), November.

80 Hermaphroditism—Brief Résumé with Illustrative Cases. Fred R. Charlton.
81 Address at Graduation of Trained Nurses at Evansville Hospital. Edwin Walker.
82 America's Contributions to Surgery: Dr. John Stough Bobbs, the Father of Cholecystotomy. Martin B. Tinker.

Archives of Otology (New Rochelle, N. Y.), October.

84 Purulent Phlebitis of the Sigmoid Sinus without Thrombosis; Death from Meningitis; Autopsy. Arnold Knapp.
85 A Case of Chronic Purulent Otitis; Extradural Abscess; Meningitis; Death; Autopsy. Arnold Knapp.
86 *Collodium After Nose Operations. Kaspar Pischel.
87 In Regard to a Case of Primary Acute Purulent Inflammation of the Mastoid Cells, Involving Neither the Middle Ear Nor the Mastoid Antrum; Reported by John Dunn, M.D. E. F. Snydacker.
88 Histological Study of Tumors of the External Ear. Franz Alexander.
89 *On the Local Action of Tri-Chlor-Acetic Acid. Hugo Schwabe.

Annals of Gynecology and Pediatry (Boston), November.

90 Congenital Dislocation of the Hip: the Causes of Relapse. E. H. Bradford.
91 A Report of One Hundred Obstetrical Cases. Edwin Rosenthal.
92 Persistence of the Thyro-glossal Duct; A Report of Two Cases. John H. Jopson.
93 A Case of Vaccination and Appendicitis. Francis D. Donoghue.

New York State Journal of Medicine (N. Y.), November.

94 *President's Address, Reflections on Some of the Purposes and Work of the New York State Medical Association. Alvin A. Hubbell.
95 *The Radical Cure of Cancer of the Stomach. William J. Mayo.
96 Report of an Interesting Case of Typhoid Infection. A. W. Preston.
97 *Pseudo-Rheumatism. James J. Walsh.
98 *Septicemia and the Curette. H. Plympton.

Kansas City Medical Index-Lancet, November.

99 The Future Physician an Optimist. (Continued.) William F. Barclay.
100 Some Points on Modern Hygiene. C. B. Hardin.
101 Reminiscences of a Recent Trip Abroad, Including Visits to the London, Paris, Berlin, etc., Hospitals, Clinics, Medical Museums and Libraries, as Well as to the British Medical Association. John Punton.
102 Coughs. St. Elmo Sanders.

The Post-Graduate (N. Y.), November.

103 *The Heart in Pneumonia. C. F. Wainwright.
104 Nekrologos on Virchow. A. Rose.
105 Examination of the Secretions of the Mouth and of the Gastric and Intestinal Contents. (Continued.) Hermann Lenhartz.
106 The Germ Theory of Disease Again. Joseph Clements.
107 Diseases of the Thymus Gland. E. Graetzer.

Medical Summary (Philadelphia), November.

108 *Septicemia and the Curette. H. Plympton.
109 *Report of a Case of Septicemia—As I Felt It Myself. J. C. Newman.
110 Consumption—Preventive. W. C. Derby.
111 New Pharmaceutical Products and Their Relation to Practical Medicine. J. E. Du Vall.
112 Pernicious Vomiting of Pregnancy (Hyperemesis). J. A. Smith.
113 Agurin, a New and Efficient Diuretic. William R. D. Blackwood.
114 Sore Eyes of the Newborn. Ben. H. Brodnax.

Iowa Medical Journal (Des Moines), October 15.

115 *The Diagnosis of Pulmonary Tuberculosis. F. W. Milroy.
116 Conditions Favoring Tubercular Infection. R. E. Conniff.
117 *Some Experiments Relative to the Inhalation of Germs, with Special Reference to the Tubercle Bacillus. G. A. Johnson.
118 Three Cases of Rupture of the Uterus. E. Hornibrook.
119 Purpura Hemorrhagica (Morbus Maculosus, Werlhof). W. F. Berner.
119½ Professor Rudolph Virchow. A. R. Ames.

Annals of Surgery (Philadelphia), November.

120 *The Technic of Prostatectomy. John P. Bryson.
121 *The Prerectal Curvilinear Incision for Prostatic Abscess; with a Report of Three Cases. Joseph Ransohoff.
122 *A Contribution to the Surgical Anatomy of the Middle Cranial Fossa, with Special Reference to Operations for the Removal of the Gasserian Ganglion. Willard Bartlett.
123 *The "Circulus Vitiosus" Following Gastroenterostomy, with a Description of a New Operation Designed to Prevent Its Occurrence. George R. Fowler.
124 *So-called Hypertrophic Tuberculosis of the Intestine. H. F. Harris.
125 *Perforation of the Bowel in Typhoid Fever. G. E. Armstrong.
126 *A New Method of Treatment for Fracture of the Neck of the Femur, Together with Remarks on Coxa Vara. Royal Whitman.
127 The Identity of Proteus Infection and Hospital Gangrene. George R. White.
128 *The Implantation of Silver Filigree for the Closure of Large Hernial Apertures. Willy Meyer.

American Journal of Obstetrics (N. Y.), November.

129 *The President's Address, American Association of Obstetricians and Gynecologists. Edwin Ricketts.
130 *Pelvic Disease in the Young and Unmarried. C. L. Bonifield.
131 *Extirpation of the Gall Bladder Through the Lumbar Incision, with Report of a Case. W. P. Manton.
132 *Suprapubic Versus Infrapubic Procedures in the Treatment of Pelvic Suppuration. J. J. Gurney Williams.
133 *Ice Following Abdominal Section. F. F. Simpson.
134 *Two Fatal Cases of Tetanus Following Abdominal Section. Due to Infected Ligatures, with a Plea for the Angiotribe in Abdominal Surgery. Walter B. Dorsett.
135 *General Consideration of Drainage in Abdominal and Pelvic Surgery. Joseph Price.
136 *Treatment of Pelvic Abscess. Herman E. Hayd.
137 *The Vaginal Route for Operations on the Uterus and Appendages; with Cases. J. H. Branham.
138 *A Résumé of the Rationale and the Technic of Bi-inguinal Celiotomy for Complicated Aseptic Retroversions of the Uterus; and a Further Report of Its Remote Results. A. Goldspohn.
139 *The Irrational Starvation Treatment of Appendicitis. John B. Deaver.
140 Surgical Relations that the Region of the Appendix bears to Pelvic Suppuration and Operative Complications. Joseph Price.
141 *Some Unusual Cases of Appendicitis and the Lessons They Teach. Miles F. Porter.
142 *Four Cases Illustrating the Difficulties of Diagnosticating Appendicitis. William W. Seymour.
143 *Intrauterine Fibroids Complicating Pregnancy, and Retained Placenta Associated with Intrauterine Fibroids Complicating Pregnancy. Cases and Treatment. Magnus A. Tate.
144 *Deciduoma Malignum, with Report of a Case. Lewis S. McMurtry.
145 *Report of a Number of Cases of Operation for Peritoneal Tuberculosis. Rufus B. Hall.

American Medical Compend (Toledo), November.

146 Insomnia. Hiram A. Wright.
147 *Septicemia and the Curette. H. Plympton.
148 Microbes and Disease. A. T. Cuzner.
149 Potassium as Compared with Sodium and Strontium Salts. Charles Louy.
150 The Use of Iron in Chlorosis and Anemia. H. Suchannek.
151 The Efficacy of Antiseptics in the Treatment of Certain Conditions, with Special Reference to the Merit of Glycothymoline. C. H. Powell.

Journal of Cutaneous and Genito-Urinary Diseases (N. Y.), November.

152 A Critical Review of L. Philippson's Proposed Reform of Dermatology. Herman G. Klotz.
153 *The Clinical Aspect and Treatment of Some Affections of the Finger Nails. Fred J. Leviseur.
154 *A Further Report on Nevo-Carcinoma. A. Ravogli.

Pacific Medical Journal, November.

155 Prostatectomy. Winslow Anderson.
156 An Improved Method Over that of the "Morgan" for the Rapid Cure of Varicocele. Frank A. Brewer.
157 Silver Vitelline. R. Cadwallader.
158 *Septicemia and the Curette. H. Plympton.
159 Is the Mosquito the Sole Agent in Transmitting Malaria? George L. Bluhm.

The Physician and Surgeon (Detroit and Ann Arbor, Mich.), July.

160 *Both Sides of the Personal Injury Question. Frank T. Lodge.
161 *Postmortem from the Medicolegal Standpoint. William P. Lane.
162 Transient Astigmatism. Ovidus A. Griffin.

Medical Mirror (St. Louis, Mo.), October.

163 *The Irrational Starvation Treatment of Appendicitis. John B. Deaver.
164 Cases in Hematherapy from Sound View Hospital. T. J. Biggs.
165 The Eliminative and Local Treatment of Gout, Rheumatism and Neuralgias. I. N. Love.
166 Rheumatism. A. M. Carpenter.

St. Louis Courier of Medicine, November.

167 *The X-Ray as a Therapeutic Agent. A. V. L. Brokaw.
168 *Gynecologic Diseases Without Local Symptoms. George Gellhorn.
169 The Cecum: In Relation to the Psoas Muscle in 310 Adult Male and 125 Adult Female Autopsies. (Continued.) Byron Robinson.
170 Two Cases of Epithelioma Treated by X-Rays. H. N. Chapman.

Georgia Journal of Medicine and Surgery (Savannah), July.

171 The Early Diagnosis of Pulmonary Tuberculosis by Roentgen X-Rays Method. Mihran K. Kassabian.
172 Comments on Yellow Fever and Mosquitoes. R. D. Murray.
173 A Contribution to the Therapeutics of Anemic Conditions. Hermann Metall.
174 Malaria; Its Prevention and Cure. H. E. McKay.

Medical Bulletin (Philadelphia), November.

175 The Value of Discipline in Medicine. F. Savary Pearce.
176 Keloid—Seborrhea—Acne—Paresthesia. John V. Shoemaker.
177 Typhoid Fever: A Few Hints as to the Treatment of Some of Its Symptoms. George W. Pfromm.

Kingston Medical Quarterly, October.

178 Immunity. W. T. Connell.
179 Passage of Large Gallstone Per Rectum. Margaret Symington.
180 The Detection and Estimation of Sugar in the Urine by the Elliott Method. Walter S. Jaquith.
181 The Diagnosis of Acute Suppurations in the Accessory Sinuses of the Nose. J. C. Connell.
182 *Septicemia and the Curette. H. Plympton.
183 Surgical Notes (Vesical Calculus, etc.). D. E. Mundell.

Medical Times (N. Y.), November.

184 The Outlook of Medicine Is Toward Prevention. Richard C. Bankston.
185 Quack Medicine. A. L. Benedict.
186 Vomiting in Pregnancy. O. M. Bourland.

Providence Medical Journal, November.

187 Heredity and Its Lessons. George F. Keene.
188 *The Etiology of Endocarditis. W. Louis Chapman.
189 *Post-Operative Mortality, with Especial Reference to Death from Anesthetics. Albert H. Miller.

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1. **Eczematoid Dermatitis.**—Engman enumerates the basic and principal results of his investigations in the following:

1. The contents of the initial vesicles, serous and seropurulent discharge, under surface of crusts and scrapings from freshly denuded surface of eczematoid skin, produce, when inoculated into artificial culture media, pure cultures of the staphylococcus, yellow or white or both. These cocci sometimes vary slightly in the peculiarity of their growth, but are certainly the staphylococcus of the ordinary types.

2. When the apparently healthy skin of a person suffering from an eczematoid dermatitis is slightly irritated, after being rendered sterile by the usual means, and then inoculated with the discharge from the eczematoid surface, there appears thereon a condition similar in its flora and symptoms to the one from which the discharge was taken. Inoculation experiments from individual to individual have not been encouraging, due most probably to the patient's unwillingness to properly submit or the reaction of the foreign soil.

3. Inoculations upon individuals from artificial cultures were also not encouraging. The organism must undergo some change in its chemotactic character in artificial media, as inoculations from it produce impetigo or purely impetiginous lesions which quickly heal; or if the lesion takes on an eczematoid character it heals too rapidly to be of much experimental value.

4. The suppurative conditions with which eczematoid dermatitis is often associated always contain staphylococci.

5. The association with suppurative conditions; history of apparent infection and autoinfection; the exciting factor of traumatism and infection, with the bacteriologic findings enumerated, all indicate and confirm our belief in the staphylogenetic origin of this dermatitis.

2. **Ear Disease.**—Amberg describes the anatomy of the ear, with illustrations, and repeats the classic indications of Schultze in regard to the early mastoid operations. He remarks that when interference is not directly based on the vital indications, the timely paracentesis may frequently make a mastoid operation unnecessary, and that a timely mastoid operation may save the patient from undergoing a radical operation or operations for complications, which are not always successful.

4. **Anesthesia.**—The conclusions of Eisendrath's article are:

1. Chloroform has a narrower zone of safety than ether. Its toxic effects are, as a rule, manifest at the time of administration. Ether is the cause of death in many cases through renal or pulmonary complications from hours to days after the anesthesia. The late deaths due to chloroform are so rare as to render this factor practically of no importance. Chloroform is a more dangerous anesthetic than ether and must be watched far more carefully.

2. Chloroform kills more frequently through primary cardiac than respiratory syncope, and the anesthetizer must watch constantly the decrease in volume and rapidity of the pulse, indicating the fall of blood-pressure, and a slowing of the more shallow respiration. Chloroform syncope can be avoided by keeping the head low, if possible turned to one side, keeping the jaw forward, watching the pulse, respiration and pupil, keeping the patient's mind quiet and keeping the chloroform well diluted with air.

3. Ether rarely causes death through its immediate, but more frequently through its after-effects, such as pneumonia and uremia. These complications may be avoided by keeping the head lower than the level of the body, turned to one side, and not giving the ether in too concentrated a form; also by not keeping the patient on his back too long, and by relieving postoperative tympanites as soon as possible. The contraindications to the use of chloroform are myocarditis, pericardial adhesions and noncompensated valvular disease. In all other forms of heart disease it may be given. It should not be given when the blood pressure is low or in status thymicus, or when a prolonged anesthesia is necessary.

4. The pulmonary complications are relatively more frequent with local anesthesia than if a general anesthetic is given. They may be due to aspiration of mucus or food, or due to hypostasis and to embolism. The latter is far more frequent than is ordinarily thought. Avoid these by exposing patients as little as possible. Use heated operating tables, avoiding recumbent position and tympany.

5. Avoid renal complications by careful examination of the urine before anesthesia.

6. Begin process of resuscitation immediately and systematically: Artificial respiration, the method of König-Maas, or massage of the heart, rhythmic traction of the tongue, method of Prus, or direct exposure of the heart and intravenous salt transfusion. I prefer to begin with massage of the heart and rhythmic tractions of the tongue (16 to 18 times a minute).

5. **Pernicious Anemia.**—According to Adler, who reports and remarks on cases of pernicious anemia, we have to deal in this condition with a toxic process, the stress of the action of the poison or poisons being exerted on the blood and cord. The resulting hemolysis is confined chiefly to the portal area. The gastric atrophy is regarded by almost all authorities as a primary condition, and presents conditions favorable for elaboration and absorption of the toxins, acting in other ways as a predisposing cause. We are to look on the anemia of pernicious anemia as only a symptom, but from the marked alteration which the blood undergoes, and the vital effects thereof, it is the most important symptom of the disease to which our therapy for the present must be directed.

6. **Tuberculosis.**—Lyle reviews his experience in a municipal hospital and notes particularly the necessity of following up the treatment, and the almost constant association of pleurisy of the dry type, the predominance of intemperance and syphilis in the histories, the importance of family history and of contagion, and the unreliability of statements as to the duration of the disease. About 90 per cent. of the cases were of the fibrocaseous variety; 9 per cent. of the fibroid form of the disease, while acute miliary tuberculosis of the lungs and lobar caseous pneumonia were rare. The majority of persons under twenty have a more or less extensive involvement of the lymphatic glands, and general tuberculosis is more likely to occur in the young. Next to the lymphatics we find the frequency of tuberculous complications of other organs in the

following order: Larynx, intestines, pharynx, joints, kidneys, peritoneum, bladder, meninges, testicles. Indigestion and faulty circulation due to heart weakness are almost constant. He thinks the bacillus is being relegated to a far less prominent position than formerly, and we should devote our efforts to remedying the physical and mental depreciation due to inheritance. His creed would be: "I believe in the inherent ability of the cells of the body to maintain the tissues in a healthful condition, both by destroying diseased germs and neutralizing the products of their activity. In order that this be done their potency must be maintained at the highest standard." For this purpose we must have pure air, sunshine, intelligently selected dietary, abstinence from alcohol, tobacco, etc. Blood examinations are sometimes of interest, but never of pronounced diagnostic value; the results of urinary examination are only of general significance. He believes in the tuberculin test as permissible if lack of time does not permit delay. There are no specifics. The *x*-ray is only of value in the diagnosis. He has not found it of value in locating cavities. Its use for therapeutic purposes was disappointing in fifteen cases thoroughly tested, though its effect in relieving pleuritic pains was marked. He concludes that we should remember that in temporarily relieving the patient of a symptom we may use drugs that have a bad general effect.

9 and 10. **Climatology of California.**—McAdie, in this article, sums up the advantages of the California climate. Sanborn takes up the same subject, limiting his remarks to the region beginning at the mouth of Cajohn Pass and encircling the East San Bernardino valley, taking in Riverside just across the divide, and other localities near at hand. This excludes the coast climate, but gives that of almost every other variety from that of the desert below the sea level to an altitude of about 10,000 feet. He remarks especially on temperature changes and notices the nervous troubles which seem to prevail, part of which he thinks are due to the constant eye-strain from perpetual sunshine, but perhaps the most important factor is nostalgia. He thinks, as the country develops, conditions for recreation and contentment multiply, and in the near future nervous troubles will be less and less prevalent.

11. **The Climate of Maine.**—Hinsdale remarks on the health conditions and on the decrease of consumption in that state during the last ten years, which has amounted to 15 or 20 per cent.

12. **Cervical Lacerations.**—The medical treatment of cervical lacerations is advocated by Bushong, who thinks that operations may be overdone. He finds Monsel's solution the best medicinal application in promoting absorption and removal of cicatricial tissue underlying mucous membrane. He uses the tampon, applied after local treatment, and considers it an important factor in the management of the cases. When the mucous membrane is broken or eroded he finds the best results in healing erosions come from a combination of pure tincture of iodin and beechwood creosote, using it before applying Monsel's solution for its action on the deeper structures. The frequency of these applications must be carefully considered. If the patient is very sensitive, once a week is sufficient, suspending treatment about three days before expected menstruation, and not resuming it until the fourth day after cessation of the flow. In very bad cases it is wise to make a visit every five days, and to apply the iron at every alternate visit, using only the iodin and creosote at the others. If there is too much irritation the condition will be relieved by leaving out Monsel's solution for a few treatments, resuming it when tenderness has passed. He reports cases showing the benefits to the cervix from local treatment.

17. **Pleural Endothelioma.**—Delafield reports four cases of primary endothelioma. He remarks that it is generally agreed that the primary new growths of the pleura originate in the lymphatics and are endothelial in their nature. The symptoms can hardly be distinguished in the beginning from ordinary pleurisy with effusion. Only the bloody serum and low temperature are suspicious, but as the weeks follow each other the loss of flesh and strength and the appearance of the patient suggest malignancy.

18. **Radiotherapy.**—Allen has treated a number of cases of cancer and other cutaneous affections with the *x*-rays, and finds a decided value in the treatment. Out of 50 cases of cancer 26 were discharged as clinically cured, 4 as improved, 10 were still under treatment and improving, and only 3 cases were discharged as unimproved, 2 were referred for surgical operations and 5 ended fatally. Eleven cases were as hopeless at the beginning of treatment as all who have to do with breast and uterine cases and cancer of the rectum know. He thinks he has observed a tendency of the tubes to produce dermatitis irrespective of their vacuum, or of any idiosyncrasy on the part of the patient. He does not believe that a surgical operation should necessarily precede the *x*-ray treatment. He has also used it in a great variety of skin affections, including lupus, psoriasis, eczema, acne, lupus erythematosus, xeroderma pigmentosum, favus, ringworm, leprosy, lichen planus, etc., and has secured in many cases better and quicker results than by the older methods alone, though he does not rely on it solely. In Hodgkin's disease and internal sarcoma, though he has no cure to report, he has had some gratifying improvements.

20.—See abstract in THE JOURNAL of October 25, p. 1066.

21.—See abstract in THE JOURNAL of October 4, p. 854.

22. **Epilepsy.**—Thomson concludes his article in this issue. After first noticing the necessity of looking after the reflex centers and the coexistence of focal cortical disorders, he mentions cases where the reflex center was in the nose, but states that the greatest area is in the throat and pharynx. The gastrointestinal tract is also a well-known seat of afferent irritation. The mechanism of the action of the bromids is partly by their reduction of the peripheral sensibility in the pharynx. Other remedies that he mentions are coal-tar sedatives, especially antipyrin, which increases the specific action of the bromids, also chloral. The great aim in the treatment of epilepsy is, however, in prophylaxis, and it is in the gastrointestinal tract that the commonest autoinfection is to be found. Intestinal antiseptics are usually required earlier or later in the treatment. Imperfect kidney elimination is also a cause. He especially notes the value of life in the open air as a remedial measure. He gives a high estimate of the curability of epilepsy, and thinks that the prognosis for complete cure in average cases is about 70 per cent. The reason why the actual cures do not reach this figure is because the patients will not follow out the treatment; they grow careless after more or less prolonged freedom from attacks. The incurable patients are those in whom an intracranial cause of afferent derangement has been operative from early life, and those in whom the epileptic habit has been engrafted on a poor constitution from youth, though many of these recover.

23. **Ringworm.**—The infection from ringworm cases is studied by Mewborn, who sums up in the following: "1, that differences of soil modify the clinical picture of a skin ringworm as well as the microscopic appearance of the fungus; 2, that in the fluid of a herpetic vesicle the mycelium of a microsporon may produce external grape-like spores; 3, that the yellow and brownish bands and the tangential fringe on beer-wort agar can be used to identify the source of infection in ringworm of the cat."

25. **X-Rays.**—From his experience in the treatment of many cases, Rudis-Jicinsky lays down the following general rules: 1. Know the capacity of the apparatus, remembering that the so-called *x*-ray burns are produced with a static machine as well as a coil. Learn every point in regard to the individuality of the tube. For superficial growths use a "soft" or "soft medium" tube with a spark gap of two inches; for internal growths a "high vacuum" tube with a spark gap of four inches. Try each tube before each application. 2. Thoroughly examine the case. Know the patient well. Protect the hair and eyes and the healthy tissue, if necessary, with lead and rubber; the latter to prevent shock by induction. Ray all the suspicious parts in as large an area as possible. 3. The length of exposure depends not so much on the time during which the tube

as in action, as on the actual time of best *x*-ray production, tested occasionally by the fluoroscope. The exposures are to be made according to each individual case, five minutes at first, and after a week, for ten minutes. If, two weeks after the first exposure, no reaction has been shown, the patient has no idiosyncrasy and may be irradiated every second or third day, and finally every day until intense reaction shows itself. The distance at the first application should be six inches, later less than that. If itching of the skin follows, stop the treatment for a while. 4. If it is unwise to treat the whole diseased surface at once, begin at the edges. If there are a few isolated nodules after the general surface of the growth begins to look better, a change of treatment is needed, and the nodules have to be attacked more vigorously. 5. Watch the progress and the results of the treatment carefully, and see whether the case is one for operation with the treatment or not. 6. Protect yourself and be prepared for all occasions, having in your office or laboratory a sign, perhaps, like this: "*X*-ray examinations and treatments at the risk of the patient. All possible and professional skill used."

27. **Post-Operative Abdominal Cases.**—Deaver and Müller report some methods used in the German Hospital at Philadelphia. They find shock unimportant as a sequel in case the operation has been performed rapidly and thoroughly. Stimulants such as strychnia, atropin, whisky, and camphorated oil hypodermically, with hot water bags and the use of hot saline solution by the bowel cause rapid reaction. Hypodermoclysis is not used as it is too cumbersome and slow. Where shock is due to hemorrhage the patient almost invariably recovers under this treatment, but this is not the case where there is septic absorption, which gives the same symptoms. In clean cases the patient is kept on the back for twelve to forty-eight hours, the time depending on the length of the incision. When the gauze drain has been employed the patient is slowly turned by supporting pillows to one side at the end of seventy-two hours. With glass drainage no change is permitted, except alternate raising of the hips on pillows. In clean cases without drainage asafetida suppositories are given every three hours, and unless the pulse demands strychnia, no medication is used. Water is not given until eighteen hours or longer if nausea persists, though the mouth may be washed out and the lips moistened. Backache is often an annoying and painful sequel. Very hot water bags or a cold water bag may be tried, but nothing usually gives relief except change of posture. This is preferable to morphin. In ten or twelve hours after the operation flatus will be passed. If it does not pass for eighteen hours an enema of milk of asafetida may be given, 60 c.c., in an equal quantity of warm water. It is a mistake to give morphin in these conditions. If the asafetida enema fails one or two ice bags on the abdomen and a high enema of turpentine, glycerin and magnesium sulphate in the proportion of one, two and three, is employed. On the third or fourth day after the operation the bowels are moved with a plain enema or with a glass of citrate of magnesia. Twenty-four hours after operation they begin giving nourishment, first milk and lime water, 5 to 10 c.c. of each every hour, rapidly increasing the quantity if well borne. On the second day chicken broth, beef tea and junket may be given with the milk. On the third, wine-jelly and gruel may be added, and from then on the diet is gradually increased until by the seventh day the patient is getting about 300 c.c. of nourishment. If the temperature is high after the bowels have moved, they look for stitch abscesses, and usually apply flaxseed poultices. In clean cases the wound is rarely dressed until the eighth day, when the stitches are removed. In drainage cases the glass is removed in two to four days, depending on the discharge; the gauze is removed from the sixth to the twelfth day, depending on the force necessary to loosen it. The rubber drain is shortened from day to day as the wound granulates up from the bottom. In removing the gauze drain, boric acid should be used for irrigation as the adhesions may not be perfectly formed and a bichlorid or carbolic solution might arouse a peritonitis. They call especial attention to the use of gastric lavage for the nausea and vomiting. The stomach usually recovers its tone in a few hours, but in other cases this method may be required. They have never seen any serious depression or hematemesis following the use of the stomach tube, nor have they ever introduced the tube into the trachea, and think it could not happen with ordinary care. Where there is paresis of the bowel lavage is remarkably beneficial, as also in cases of cholelithiasis with gastric disturbance and especially in those cases re-operated on for gastro-hepatic adhesions. It is their routine practice to wash out the stomachs of such patients every six hours for the first twenty-four hours after the operation. Purgation is the sheet anchor in the treatment of peritonitis, but it can not be used in case of vomiting, and lavage sometimes seems to work well. They wash out early and introduce 30 to 60 gm. of Glauber's or Epsom salts, sometimes adding 30 c.c. of whisky or a predigested food.

29. **The Diet in Typhoid.**—Robertson advocates a freer diet in typhoid, believing that it will diminish the number of deaths from asthenia and intercurrent affections and lessen the increased liability to perforation.

30. **Foreign Bodies in the Vermiform Appendix.**—Bell reports two cases, one in which there was a pin and in the other a gallstone producing the trouble in the appendix. He thinks while it is unquestionable that foreign bodies rarely cause appendicitis, it is worth while to put these cases on record.

34. **Nail Disease.**—Eczema produces the most frequent examples of nail disease, furnishing 107 out of 485 cases on which White's paper is based. It is due to the same causes as bring about an eczema of the skin, and it causes total loss of the nail. Unless the matrix is affected in trauma or felon, the results on the nail are unimportant. Paronychia comes third in importance, providing 68 cases. Psoriasis is almost an equally common disturber of nail equilibrium, while involvement of the nails in cases of cutaneous psoriasis is much commoner than is the rule in eczema. The prognosis, he thinks, is generally good, but he has seen cases where the nails did not return again. There were 62 cases of nail implication in dermatitis of the hands and fingers directly attributable to some noxious occupation or chance poisoning of the skin. The commonest symptom is koilonychia, which appeared in about 40 per cent. Syphilis of the nail is not a common condition, found in only about 5 per cent. of his cases. It occurs both in the primary and secondary forms. Tinea tricophytina is a very rare condition, usually caused by the megalosporon; tinea favosa is a little more common. The clinical appearances of the two diseases are quite similar. Tinea favosa may be contracted from domestic animals. Russian Jews seem to be specially liable to it.

43.—See abstract in THE JOURNAL, xxxviii, p. 1176.

44.—See abstract in THE JOURNAL of October 25, p. 1065.

49.—See abstract in THE JOURNAL of October 25, p. 1066.

54.—This article has appeared elsewhere. See THE JOURNAL of November 8, title 142, p. 1210.

63. **Morphin.**—The indiscriminate use of morphin by physicians is deprecated by Crothers, who calls attention to the possibility of its producing narcomania and the danger, although the physician may conceal from the patient what drug he is taking, of its being revealed to him later in the case of change of doctors. Proprietary drugs given for the purpose of controlling pain also contain dangerous and uncertain narcotics and should be avoided. Many obscure diseases may be traced to reckless medication of this kind.

64. **Alcohol.**—Cushing pleads for alcohol a place in therapeutics as a narcotic and to a less extent as a stomachic, and in certain conditions as a food. He does not deny the fact that it has drawbacks, like every other drug, but we should not be guided entirely by consideration of any one of its properties, but estimate the total of its effects, good and evil, as regards the special condition.

65. **Methyl Alcohol.**—The action of methyl alcohol is reviewed by Hunt, who gives the results of his own experiments and the experience of others with this agent. Even when free from impurities it is dangerous and it is totally unfit as a

substitute for grain alcohol in any preparation which is to be taken internally, especially those to be given for any length of time.

72.—This article has appeared elsewhere. See THE JOURNAL of October 25, ¶36, p. 1072. See also editorial, November 22, p. 1327.

75. **The Blood in Pregnancy.**—The conclusions reached by Pray from examination of the blood in pregnancy and the puerperium are given by him in the following: "1. Where blood generation fails to keep pace with the increased vascular area, a serous dilution of the blood takes place. 2. In the majority of cases this is not serious, and can be overcome by simple hygienic measures—fresh air, good food and the overcoming of constipation. Cases in which the vitality is overtaxed by the increased demand for nutrition may call for iron or other hematinic treatment. 3. The regeneration of the blood is partly effected by the lessening of the vascular area after labor and subsequent transudation of fluids of the blood into the tissues. 4. The leucocytosis is due to increased action of enlarged lymph glands of the pelvis, and in part to increased metabolism, which causes a somewhat toxic condition. Its decrease is caused by the lochial discharge. Its persistence is accounted for by the fact that the involution of the hypertrophied pelvic organs and breasts is accomplished in a great measure by the leucocytes. 5. A study of the blood of a woman delivered by the Cesarean operation shows the same general behavior of the blood constituents as does that of women after normal labors."

77.—See abstract in THE JOURNAL, xxxviii, p. 1667.

79. **Ventrofixation and Ventrosuspension of the Uterus.**—After discussing the indications according to which these operations are performed, Kreutzmann expresses the view that they are only relative and that as surgical procedures these operations create an unphysiologic condition. The remote consequences are sometimes disastrous to the health and life of the subject, and even grave disturbance of the normal progress of gestation is occasionally observed. These are not indispensable operations. While it may be said sometimes that it is right to propose a surgical rectification of a backward displaced uterus, fixed or movable, it should be devoid of danger to the life and health of the patient, immediate or remote. In women of childbearing age it should be free from the danger of interfering in the least with the normal progress of pregnancy and delivery. Ventrofixation and ventrosuspension as usually performed are not thus devoid of danger. In vaginal fixation (in nonparous women) and in shortening the round ligaments (by either vaginal, intra-abdominal or inguinal route) we have at our disposal operations which, if properly selected, combine efficiency with absolute freedom from danger.

86. **Collodium After Nose Operations.**—Pischel finds collodium a satisfactory local application in the after-treatment of nose operations. When through with the operation (removal of hypertrophy on lower turbinal, for example), he touches the wound several times with adrenalin to stop the bleeding, and then drops collodium on the wound while an assistant blows compressed air into the nose to accelerate evaporation. The collodium forms a firm white membrane, which protects the wound against infection and prevents secondary hemorrhages. He has used it in thirty-one cases and has not had one secondary hemorrhage, and it is not uncomfortable as the patient is under cocain anesthesia. It should be dropped on the wound carefully and slowly so that it will not run down into the pharynx and make the patient cough. One might use a fine Eustachian catheter, on the wider end of which a small rubber bulb (a dropper) is mounted and fastened air-tight with a rubber band. One filling of the bulb with collodium is usually enough to cover the whole wound.

89. **Trichloracetic Acid.**—Schwabe has investigated the action of trichloracetic acid on the mucous membrane. He finds that it acts only superficially, but destroys the epithelium, and is an excellent means for producing this effect. Galvanocaustic scabs are favorably influenced by the application of this acid. It seems also to be useful by forming a superficial protective layer that prevents the settling and developing of those bacteria which have entered the nose within the region deprived of its physiologic protection. Its property of closing up all the channels discharging from the surface of the turbinals renders it applicable in the treatment of hay fever. He has employed it in numerous cases of nasal hydrorrhea with excellent results. The acid apparently enters into combination with the albumin of the glandular duct secretion, and thus prevents the fluid from being discharged for several days.

94.—See abstract in THE JOURNAL of November 8, p. 1205.

95.—See abstract in THE JOURNAL of November 8, p. 1204.

97. **Pseudo-Rheumatism.**—A number of conditions resembling rheumatism are reviewed by Walsh, who concludes that acute articular rheumatism would seem to be an acute infectious disease and with no more necessary relation to such pathologic changes in joints, as are exhibited in milder or severer forms of arthritis deformans, than certain other infectious diseases. The so-called chronic rheumatism, with degenerative changes in joints, partakes rather of the nature of arthritis deformans than of a true rheumatic process, and should be treated accordingly. Muscular rheumatism, so-called, is usually not an acute infection in any way similar to acute articular rheumatism, but the painful conditions in muscles spoken of as rheumatism are really due to blood dyscrasia and certain toxemias, or to functional arthritic nervous conditions, causing reflex pain in muscles around joints, or to certain occupations in which muscles are overused or improperly employed, and finally to such joint relaxations as occur from flat-foot or dislocation or frequently repeated or severe sprains.

98.—See No. 72 above.

103. **The Heart in Pneumonia.**—The importance of an examination of the condition of the heart in pneumonia is insisted on by Wainwright, who describes the mechanism of dilatation and failure of the right heart in this disease. Its hypertrophy may be an important factor in producing pneumonia and other pulmonary diseases. He calls attention to one especially valuable physical sign, the pulmonic element of the second sound of the heart, which is underestimated by the profession. In young children this element is accentuated, and at the middle period of life the pulmonic and aortic are about equal in intensity, while in old age the aortic element becomes accentuated under normal conditions. In pneumonia, this well-pronounced accentuated second pulmonic sound becomes a safe guide for the administration of cardiac stimulants and aids in making an intelligent prognosis. A diminution of intensity of this sound is a confession of failure of the right heart, and should be a signal for the use of digitalis, alcohol and other cardiac stimulants. The rapid and weak pulse is not so reliable. He speaks in regard to the use of digitalis, that when not indicated it is a pernicious drug, but when it is really indicated nothing is better. In the discussion following Prof. Andrew H. Smith takes a somewhat different view as regards the use of digitalis, holding that it has often done more harm than good. Its use is pernicious except when there is arrhythmia, indicating heart failure, then it may be of use to steady it.

108.—See No. 72, above.

109.—Ibid., November 15, title 26, p. 1278.

115. **Diagnosis of Tuberculosis.**—The points specially called attention to by Milroy are the need of care as to the clinical history, symptoms of failing strength without assignable cause, indigestion, increased heart action, cough with or without expectoration, hemorrhage and a careful study of the temperature. He agrees with Hobbs that all cases with a mean temperature of 99.5, which is not much above the normal range, are predisposed to tuberculosis. The two diseased conditions with which incipient phthisis are most frequently confused are probably malarial fever and dyspepsia. He notices particularly the need of attention to the quality rather than the quantity of sound in percussion and the securing of proper breathing on auscultation. The disease is especially liable to manifest itself about two inches below the middle of the sternum in front, or in the supraspinous region behind or in the apex of the lower lobe behind or the apex of the right

middle lobe, which is found in the midaxillary line at the fourth interspace.

117. **Tuberculosis.**—Johnson recapitulates the argument that the preponderance of evidence indicates that the germs rarely if ever reach those portions of the lungs, which are most frequently the seat of primary tubercular foci, through the air current, but usually through the circulatory system. It does not necessarily follow that they are absorbed from the walls of the air passages, but that they might have been absorbed at other points, as the alimentary tract. The primary foci of pulmonary tuberculosis in man are most frequently in the smaller lobes of the lungs, which are frequently in a collapsed condition and where germs would be less likely to enter through the air channel. Their seat indicates an abnormal condition of the parts at the time of attack rather than the source through which they entered the system. Koch's statement that inhalation is the chief cause is, therefore, erroneous.

120. **Technic of Prostatectomy.**—The method described by Bryson is the perineal one, in which, after the introduction of the staff, he makes a free median incision in such a way as to open the urethra just in front of the apex of the prostate. The forefinger is introduced and the staff withdrawn. Guided by the finger a blunt instrument is passed into the urethra and made to puncture, from the urethral side, the lowermost part of the mass. The puncture is always made in the lower posterior quadrant, and the instrument pushed well into the swelling. The finger follows, tearing its way in the opening through the capsule and loosening the lobe as far as its attachment to the urethra from which it is detached, care being taken not to take away too much of the sides nor any of the roof of the urethra. The hypertrophied lateral lobe is then removed. The process is repeated on the opposite side, after which a median posterior segment sometimes remains to be dealt with, which can easily be excochleated. Usually the finger can be then passed into the bladder, which is explored. The cavity is irrigated with a hot salt solution and a loose flap of mucous membrane found that can be made to occlude the vesical vault. Care should be taken not to push this back into the bladder when a large drainage tube is introduced and the cavity packed with gauze. This technic is modified to some extent according to the size of the prostate, as the incision must be made to correspond. In some later cases he has done a preliminary epicystotomy for drainage and for the treatment of the bladder and kidneys, and he thinks it is best, when this is to be done, to make it a preliminary operation.

121.—See abstract in THE JOURNAL of July 5, p. 40.

122. **Middle Cranial Fossa.**—Bartlett describes the anatomical conditions in the middle cranial fossa with special reference to the occurrence of the middle meningeal artery. He finds it impossible to formulate any rule for avoiding this in making a bone opening for removal of the Gasserian ganglion. It can hardly be said to follow the same route in any two cases. We should realize the possibility of meeting the artery at almost any point in the temporal fossa or even outside the protecting wall. He also calls attention to the faulty description of the field of operation. He describes certain anomalies of the meningeal artery and says that this vessel is most easily avoided at the point where it enters the cranial cavity. He also notices those cases which have the second and third branches of the trifacial closest together.

123. **Gastroenterostomy.**—Fowler has devised a method of gastroenterostomy, which consists of first securing a communication between a loop of the jejunum and the stomach, then an entero-enterostomy between the afferent and efferent portions of this loop, and finally, obliteration of the lumen of the afferent loop between the two points of the anastomosis, by passing a No. 20 silver wire two or three times around the afferent loop at the point selected, and drawing on the turns sufficiently to occlude the lumen without strangulating the wall. The ends are twisted together, cut short and rolled into a flat coil in such a way as to bring the cut ends in the coil, thus guarding against subsequent injury to the surrounding structures. He reports cases.

124. **Hypertrophic Tuberculosis of the Intestine.**—After a detailed description of the conditions in a case, Harris discusses the etiology,, morbid anatomy, symptomatology, diagnosis, prognosis and treatment. Of course, it is only capable of operative relief. The statistics as regards operation are on the whole encouraging. There were 60 cures and 4 cases improved out of a total of 88 operated on.

125.—See abstract in THE JOURNAL, xxxviii, p. 1467.

126. **Fracture of the Neck of the Femur.**—Whitman criticises the familiar methods of treatment of this injury, which he says is misrepresented in text-books as being uncommon, excepting in old age. The methods, he thinks, are faulty both in conception and practice, if intending reposition and retention of the parts in the normal position. Abduction of the thigh would be much more likely to bring the parts into position than when the limb is held on a line with the body. If reposition were attained it could be kept secure with the long spica bandage with fixation in abduction. He has also modified the after-treatment of some of these cases, using the ordinary hip splint as a traction appliance, or as a simple perineal crutch in after ambulation. When replacement is impracticable as in the ordinary type of coxa vara, he would remove a wedge of bone from the base of the trochanter, preserving a portion of the cortex at the apex of the wedge on the inner side of the femur, opposite the trochanter minor, and then retain the limb in the position of complete abduction until union is complete.

128.—See abstract in THE JOURNAL of July 12, p. 101.

129.—See abstract in THE JOURNAL of October 4, p. 854.

130.—Ibid., September 27, p. 790.

131.—Ibid.

132. **Pelvic Suppuration.**—Williams pleads in this article for the abdominal over the vaginal operation. He says that, with all that is said about the simplicity of puncture methods and drainage by the vaginal route, with speedy relief and recovery, he wishes to say that aside from the mortality, which is not small, the number of invalids leaving the hospital is very large, and the number that return for subsequent operation is also great. The mortality is smaller and recovery more satisfactory by abdominal section.

133.—See abstract in THE JOURNAL of September 27, p. 790.

134.—Ibid., November 1, p. 1133.

135.—Ibid., September 27, p. 790.

136.—Ibid., November 1, p. 1133.

137.—Ibid., September 27, p. 790.

138.—Ibid., November 1, p. 1133.

139.—Ibid., October 4, p. 853.

141, 142, 143 and 144.—Ibid., November 1, p. 1133.

145.—Ibid., p. 854.

147.—See No. 72 above.

153. **Affections of the Nails.**—After first noticing the rarity of typical onychomycosis trichophytina, the difficulties of its diagnosis and the unsatisfactoriness of treatment, Leviseur mentions a special form of nail disease and the probability of its parasitic origin, though he has not been able to isolate any vegetable parasite. The individual lesions are minute, round, shallow holes of the size of a very small pinhead, arranged sometimes in regular concentric lines, covering sometimes the whole surface of the nail-plate. When recovery occurs it starts from the proximal end and they slowly disappear. The nail is not shed. The cases in which he has observed it are all adults; five of the nine cases had seborrheic eczema of the scalp or elsewhere. Pruritus, especially of the anus, seemed to be a common accompaniment. Salves seemed to have little effect, and frequent manicuring aggravated the disease. In four cases cure was produced by the use of a 1 per cent. solution of permanganate of potash; bathing with this for about ten minutes twice a day, followed with an oxalic acid solution (2 per cent.). He is inclined to think that the disorder has some connection with Unna's seborrheic eczema, but no relation with ringworm or psoriasis. The occasional combination of the pathologic

changes of the nails and pompholyx seemed to have escaped the attention of others, but he has observed a number of cases where the matrix of the nails was affected. Ordinary eczema localized on and around the nails is usually readily recognized. He also notes occupation diseases of the nails. Favus of the nails is not nearly so rare as ringworm and is more easy to diagnose. He thinks avulsion of the nails is indicated where the disease has made much inroad. For the milder cases saturated solution of potassium iodid and metallic iodin may effect a cure. Caustics should be avoided. Koilonychia is, he thinks, due to pathologic changes of the nail bed. As to onychorrhexis it is uncertain whether it is to be called a disease of the nails or only a nervous trophic symptom.

154. **Nevo-Carcinoma.**—Ravogli reports two more cases of nevo-carcinoma and discusses the condition. He concludes that the nevi frequently cause the carcinoma, not by any included embryonic cells, but because of the frequent bruises and irritations to which they are exposed.

158.—See No. 72 above.

160. **Personal Injuries.**—Both sides of the personal injury question are shown up by Lodge. He gives instances of the mania for litigation and the methods of many of the plaintiffs and also of the questionable methods adopted by the companies in meeting these attacks. He sees no remedy but one, that is, absolute honesty on the part of all parties, jurors, plaintiff, defendant, judges and expert witnesses.

161. **Postmortem from the Medicolegal Standpoint.**—The necessity of a thorough postmortem as a furtherance to justice, etc., is insisted on by Lane, who severely criticises some cases that have occurred, including the Luetgert case in Chicago, for instance, with its wild and extraordinary claims on the part of so-called experts.

163.—See above title 139.

167. **X-Rays.**—Brokaw's article is fully illustrated with pictures of the results of the *x*-ray treatment. He offers the following points from his six years' experience: Much study is required; the method can not be learned quickly. The most efficient apparatus should be used. When great penetration is necessary high tubes should be employed, and the most powerful coils, capable of generating sparks at eighteen or twenty inches. He holds it will soon be recognized as a proper procedure to subject all inoperable cases to the rays, not in a haphazard manner, but with the tube carefully adapted to each particular case. It is also good practice to subject all patients to the *x*-rays after operation as a prophylactic measure, and he especially advocates this in case of mammary cancer. He does not object to setting up a dermatitis, but brings this about as soon as possible. He always tans the parts, however, before he actually attacks the growths with a hard tube, if the use of such is indicated. To avoid unfortunate results, white gangrene, etc., one must proceed with caution. Idiosyncrasies are not to be forgotten. He has noticed a susceptibility to the rays in cases of chronic rheumatism, in elderly subjects with faulty vascular conditions, such as senile changes, and in certain alcoholics. The practice of using a high tube from time to time often hastens and brings about curative effects in a most rapid and satisfactory manner. In growths of a considerable area it is well to direct the rays to the periphery as that is where the healing commences most actively.

168. **Gynecologic Diseases Without Local Symptoms.**—From a review of the literature and a study of the reported cases, Gellhorn offers the following conclusions:

1. Diseases of the female sexual organs occur sometimes without local symptoms, but at the same time may produce disturbances in remote organs. 2. If these disturbances are transmitted by way of the nerve tracts they must be considered to be genuine genital reflex neuroses and can be differentiated from hysterical manifestations. 3. Not every ailing woman should be subjected to a gynecologic examination at once. But in the absence of sufficient cause elsewhere, or when a rational treatment has proved ineffective, the possibility of pelvic disease should be borne in mind. 4. In the climacteric woman a gynecologic examination should be early made in every somewhat suspicious case to facilitate the discovery of the possible existence of a malignant growth and to ameliorate the otherwise grave prognosis by the introduction of an adequate treatment.

182.—See title 72 above.

188. **Endocarditis.**—The conditions in which endocarditis occurs, its cause, and consequences are discussed by Chapman, who reports cases showing its effects. He insists on the importance of heart complications in disease, both as regards the immediate and ultimate outcome. The teaching that endocardial changes are of but slight consequence, and that little can be done in treating heart cases, and that digitalis is the beginning and the end of cardiac therapeutics, are mischievous, as they set at naught the results of many observers and investigators, and lack the optimism which should characterize all research. Minuteness of observation, discrimination in therapeutics and careful attention to the details of treatment only can bring clinical results.

189. **Anesthetics.**—The fatal cases of anesthesia are classified by Miller under the following heads: 1. Those where the anesthesia was blamed because no other cause of death was recognized. These are only of interest because of their frequency. 2. Cases in which the effect of the anesthetic on organs already diseased hastened the inevitable fatal termination. This mortality can be diminished by careful preliminary examination and preparation of the patients and by attention to the selection of the particular anesthetic to be employed. Instead of sticking to ether in every case, we have at our disposal cocain, which has an indefinitely wide field of usefulness, nitrous oxid with practically no mortality for brief operations and sometimes longer ones, and chloroform, which may be safer in certain conditions as in the young and very old, kidney and lung disease, diabetes, in the obese, in dyspnea from any cause, narrowing of the larynx, and in operations about the brain and mouth. The combination of oxygen with ether or chloroform may save patients who can not otherwise undergo the anesthetic. In the third class where deaths are due to improper administration or overdose of anesthetics the difficulty is twofold, and consists of inappreciation of the potency of the agents employed and in a lack of understanding between surgeon and anesthetist. Medical schools slight the subject, hospitals pay little attention to it, in private practice anesthetics are daily administered by those who have no experience and have not studied or interested themselves in the subject. Bungling administration, overloading the lungs with the anesthetic at any one time are responsible for some of these cases. The anesthetist should have a thorough knowledge of the physiologic action of drugs, and there should be no misunderstanding as to the immediate responsibility. He is in a better position to observe the general condition of the patient than the operator, and should have chief consideration in this respect.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal (London), November 8.

1 *Intraperitoneal Hemorrhage Incident to Ectopic Gestation. Charles J. Cullingworth.
2 *An Operation for Gallstones with the After-History of a Series of Cases Operated On. Rutherford Morison.
3 *A Discussion On the Treatment of Chronic Enlargement of the Prostate. P. J. Freyer and others.
4 *Perineal Prostatectomy by a Special Method. Parker Syms.
5 The Purse-String Suture in Gastrorrhaphy for Gunshot Wounds: An Experimental Contribution. N. Senn.
6 *The Diagnosis of Urethral Diseases. Ferd C. Valentine.
7 Thirty Cases of Gastro-enterostomy for Non-malignant Affections of the Stomach. T. Kennedy Dalziel.
8 *Renal Decapsulation Versus Nephrotomy, Resection of the Kidney and Nephrectomy. George M. Edebohls.
9 *Value of Blood-counts in Abdominal Diseases. C. Nepean Longridge.
10 *Union of Intestine. E. Stanmore Bishop.
11 Case of Resection of the Stomach: Patient Well Eighteen Months Later. A. W. Mayo Robson.
12 *The Removal of Deformities of the Nose by the Subcutaneous Injection of Paraffin. Walker Downie.
13 *The Radial Cure of Femoral Hernia. Jas. Henderson Nicoll.
14 *Rodent Ulcer: Its Pathology and Treatment. Joseph D. McFeely.
15 Modified Vulliet's Nephropexy Simplified by the Use of a Swivel-tenotome. J. Lynn Thomas.

The Lancet (London), November 8.

16 Intra-peritoneal Hemorrhage Incident to Ectopic Gestation. Charles J. Cullingworth.
17 *Round-about Constipation. James F. Goodhart.

18 *The Nature, Causes and Treatment of Cardiac Pain. Alexander Morison.
19 An Analysis of a Series of 500 Consecutive Operations for Primary Cataract Performed in Five Months in the Government Ophthalmic Hospital. R. H. Elliot.
20 Tape-worms as a Possible Cause of Diabetes. Joseph E. Judson.
21 Case of Large Dermoid Cyst Complicating Labor. Bryce J. Macaulay.

Indian Medical Gazette (Calcutta), October.

22 *Note on Serum Reactions and the Temperature Curve in Chronic Malaria, Including Kala-azar. Leonard Rogers.
23 *Note on Kala-azar. J. Dodds Price.
24 A Note on Dengue Fever. W. G. Priamore.
25 Further Note on Intestinal Sand. C. H. Bedford.
26 A Method of Direct Cultivation. E. R. Rost.

Journal of Tropical Medicine (London), November 8.

27 *Notes of a Tour in the North Canara District of India in Search of Mosquitoes. E. H. Aitken.
28 *A Reply to Dr. Braddon's Paper On an "Undescribed" Hematozoon to Be Met in the Malay Peninsula. J. T. Clarke.

Hospitalstidende (Copenhagen), xlv, August 27 to October 29.

29 (Nos. 35 and 36.) Appendicitis obliterans. Knud Faber.
30 (No. 37.) *Transmission of Tuberculosis from Man to Cattle. J. Fibiger and C. O. Jensen.—Overforelse af Menneske-tuberkulose til Kvaeget.
31 (No. 38.) Tattooing Among Prostitutes. R. Bergh.—Om Tatoveringer hos Fruentimmer af den offentlige og hemmelige Prostitution.
32 (No. 39.) *Om Rhinitis fibrinosa s. crouposa s. pseudomembranacea. J. Moeller.
33 Three Cases of Foreign Bodies in Air Passages. U. Hansen. —3 Tilfaelde af Fremmedlegemer i Luftvejene.
34 (No. 40.) Cryoscopien i den functionelle Nyrediagnostiks Tjeneste. Nordentoft.
35 (No. 42.) Length of Diphtheria Bacillus. P. Heiberg.—Difteribacillens Laengde.
36 1 Tilfaelde af ensidig partiel Nephritis chronica, behandlet med Nephrotomi. S. Nordentoft.

Bulletin de l'Academie de Med. (Paris), October 28.

37 *Improved Writing and Reading Apparatus for the Blind. Laborde.—La reglette Dussaud.
38 La vaccine obligatoire en Alsace-Lorraine. Hervieux.
39 Sur l'épizootie de Surra qui a regné en 1902 à l'ile Maurice. A. Laveran.

Semaine Medicale (Paris), October 15 to 29.

40 (No. 42.) Transmission à l'homme (to man) par inoculation accidentelle, de la tuberculose bovine, et réinoculation experimentale au veau (of a calf). C. H. H. Spronck and K. Hoefnagel (Utrecht).
41 Traitement des suppurations chroniques du sinus maxillaire par la resection large de la partie inferieure de la paroi (wall) nasale du sinus. Cloaué.
42 (No. 43.) L'agitation, ses causes et son traitement. G. Deny.

Deutsche Med. Wochenschrift (Leipsic), October 30.

43 *A New Kind of Diphtheria Serum. A. Wassermann.—Ueber eine neue Art von D.-Serum.
44 Ueber die Entstehung einer Malaria-Epidemie im Harlinger- und Jeverlande während des Jahres 1901. E. Martini.
45 *Nephritis syphilitica acuta. Waldvogel.
46 Origin of Basophilic Granulations in Red Corpuscles. P. Schmidt.—Zur Frage der Entstehung der basophilen Körner in den rothen Blutkörperchen.
47 *Significance of Typhoid Bacillus in Post-Typhoid Respiratory Affections. P. F. Glaser.—Die Bedeutung des Typhusbacillus bei Erkrankungen des Respirations-Apparates im Gefolge des Ileotyphus und sein Auftreten im Auswurf. (Commenced in No. 43.)
48 *Cancer Investigating Stations. I. Boas.—Ueber Untersuchungsstationen für Krebsverdächtige.
49 Frequency of Natural Lactation. H. Neumann.—Ueber die Häufigkeit des Stillens.
50 Report of German Colonial Congress, Berlin, October 10-11.

Klinisch-Therapeutische Wochenschrift (Vienna), ix.

51 (No. 36.) Zur speciellen Prophylaxe der Gonorrhoe bei Männern und Frauen. L. Jakobsohn.
52 Cases of Foreign Bodies in the Human Body. J. Marer.—Ueber Fremdkörper der verschiedenen Regionen des menschlichen Körpers. (Commenced in No. 32.)
53 (No. 38.) *Zur Statistik der tertiären Syphilis. E. Weber. (Commenced in No. 33.)
54 (No. 39.) Ibid. J. Jadassohn (Berne).
55 (No. 40.) Tests of Artificial Foods on Various Generations of Mice. F. Röhmann.—Ueber künstliche Ernährung.
56 *Die medicamentöse und symptomatische Behandlung der Lungen-Tuberculose. A. v. Weismayr. (Commenced in No. 37.)
57 (No. 41.) *Ueber die Anwendung des Pyoktanins in der Ophthalmologie und bei Cancroiden. G. Weill.
58 (No. 42.) Significance of Thyroid Gland. A. v. Eiselsberg.—Die Bedeutung der Schilddrüse für den Haushalt der Natur.
59 (No. 43.) *Treatment of Affections of Testicles and Their Adnexa. J. Zabludowski.—Zur Therapie der Erkrankungen der Hoden und deren Adnexen.
60 Ueber subcutane Paraffin-Prothesen. L. Moszkowicz. (Collective Review.)
61 (No. 44.) *Examination of Visual Field to Control Treatment of Syphilis of Brain and Spinal Cord. O. Ziemssen. —Gesichtsfeldaufnahmen als Controlle in der Behandlung der Hirn- und Rückenmarkslues.

Muenchener Med. Wochenschrift, October 28, xlix, 43.

62 Ueber den Wert der Elastin-Färbung für die histologische Diagnostik. B. Fischer.
63 *Sahli's Test of Stomach Functions. Bönniger.—Ueber die Sahlische Methode der Functions-Prüfung des Magens.
64 *Cure of Nomatous Gangrene by Excision of Diseased Tissue. H. v. Ranke.—Ein weiterer Beitrag zur Behandlung des nomatösen Brandes durch Excision des erkrankten Gewebes.
65 *Ovariotomy During Pregnancy. M. Graefe.—Zur Frage der Ovariotomie in der Schwangerschaft.
66 *Suture of Bladder After Sectio Alta. C. Hofmann.—Zur Frage der Blasennaht nach S. a.
67 Refutation of Objections to Paracentesis of Tympanum in Treatment of Acute Otitis. Grunert.—Ueber die neuen Angriffe gegen die Parazentese des Trommelfelles bei der Therapie der acuten Otitiden.
68 *A Review of 720 Gallstone Laparotomies. H. Kehr.—Ein Rückblick auf 720 Gallensteinlaparotomien, unter bes. Berücksichtigung von 90 Hepaticus-Drainagen. (Commenced in No. 41.)

Gazzetta degli Ospedali (Milan), September 4 to November 2.

69 (No. 108.) *Indicanuria e sua importancia clinica. P. Porru-Costa.
70 *L'ematologia della cloronarcosi. U. B. Solimei.
71 *Il lupus vulg. curato con l'aldeide formica. G. Matteucci.
72 (No. 110.) Report of X Sanitary Congress, Mantua, September 4. (Commenced in No. 105.)
73 (No. 111.) *La scoliosi sciatica o segno di Vanzetti. D. Cappuccio.
74 Due casi di ipertrofia della prostata curati colla resezione dei dotti deferente. P. Commandini.
75 *Un nuevo mezzo terapico per le forme catarrali croniche delle prime vie respiratorie. Della Vedova.
76 (No. 114.) Sulla presenza di cosidetti batteri acidofili nelle feci dell' adulto. A. Cipollino.
77 Nota sui rapporti biologico tra liquidi organici. M. Segale.
78 Cancro e malaria. A. Rovighi.
79 *Contributo allo studio delle varici. L. Ronchi.
80 *Medicated Steam in Treatment of Carbuncle. S. Gucciardello. —Cura del vespai senza taglio.
81 Alcune note intorno alla colorazione triacida di Ehrlich. C. C. Ducati.
82 (No. 117.) Splenectomia ed operazione di Talma per morbo di Banti all 3o stadio. Autopsia. F. Gangitano.
83 (No. 120.) La tuberculosi incipiente e il solco apicale del polmone. R. Pianori. (Anatomic Study.)
84 Per la genesi del lipoma. E. Alevoli.
85 Le ultime questioni risguardanti il latte nella practica dell' allattamento artificiale. C. V. Peroni.
86 6 casi di fistola auris congenita. R. Luigi.
87 *Considerazione terapeutica sull'uso della lecitina. C. Serono.
88 (No. 123.) Sul potere di assorbimento e di eliminazione della mucosa vesicale. M. Bucco.
89 Osservazione su alcuni casi di recidive di febbri malariche in seguito a traumatismi. G. Perrod.
90 *Contributo sperimentale alla cura delle perforazioni e lacerazioni della cistifellea (gall bladder). L. Baldassari.
91 Due casi di actinomicosi umana. A. De Cortes.
92 (No. 126.) Report of XII Congress of Internal Medicine, Rome, October 28-31. Addresses on Intravenous Medication and Pathology of Nephritis.
93 Sopra 2 laparotomie con drenaggio alla Mikulicz per ferite penetranti. G. Recchi.

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1. **Intraperitoneal Hemorrhage.**—Cullingworth's article reviews the whole subject of intraperitoneal hemorrhage from ectopic gestation, which is its usual cause. He notices the symptoms and discusses separately peritoneal hematocele, which he credits as usually the result of bleeding from an ectopic pregnancy in the fimbrinal end of the tube before it is thoroughly closed up. He points out the dangers of the neglected ovum and insists on the importance of the diagnosis of these conditions.

2. **Gallstones.**—The operation for gallstone here given by Morison is making a skin incision one inch below the tip of the twelfth rib, ending in front of the middle line, at the upper part of the middle one-third of a line drawn from the ensiform cartilage to the umbilicus. All the layers of the abdominal wall, including the rectus muscle, are divided, and the cut edges of the peritoneum caught in clip forceps. A thick gauze pad or sponge is then packed into the abdomen under the lower flap of the wound over the colon and omentum, shutting off access to the general peritoneal cavity in this direction, and on the inner side and in front the stomach is covered and protected by a gauze pad. The wound may be more thoroughly opened out by making the ileocostal space convex to the right and pushing the hips and shoulders to the left. Drainage is secured by a rubber tube, which in case of the gall bladder is fixed to it by catgut sutures and a thick broad strand of gauze through the wound posteriorly to insure its patency. Drainage of the common duct is effected by leaving an opening in the duct unsutured with a large tube apposed to it. He does not favor drainage of the hepatic and common ducts by tube in the lumen. The wound is closed with four tiers of catgut or with two of catgut and two of silkworm gut, the first bringing together at the sides the peritoneum, fascia, transversalis and

internal oblique muscle; the second the external oblique, the third secures the fat and skin subcutaneously to the external oblique, while the fourth is a subcuticular for the skin edges. When a silkworm gut is used, the first layer of deep, far-distanced, interrupted sutures attach the skin to the external oblique muscle and bring the skin edges together roughly. The second intermediate interrupted suture through the skin edges completes the apposition, and in front the rectus and aponeurosis receive the same care. He tabulates and discusses his cases. They confirm the surgical belief that in most cases operation affords permanent relief and great improvement in the general health. Recurrence of symptoms means gallstone trouble again.

3. **Enlargement of the Prostate.**—Freyer reports 6 cases of suprapubic operation for prostatic hypertrophy. He has performed the operation on 21 patients, varying in age from 58 to 79 years; the parts removed weighing from 1½ to 10¼ ounces. All of them were advanced cases in catheter life, and in 19 of the cases an absolute and complete cure was obtained. One patient died in acute mania the twenty-fourth day after the operation, and the remaining case succumbed to heat stroke.

4. **Perineal Prostatectomy.**—Syms describes his method with his rubber retractor, the various advantages of which he points out. Its bulb acts as a hemostatic as well as holding the instrument in place. He objects generally to the suprapubic method, as he considers the perineal one safest and best. He has operated on 21 patients and has had no deaths. All had cystitis except one. A practical cure has resulted in every case except one, where the operation was incomplete.

5.—This article appeared in THE JOURNAL of November 8, p. 1182.

6. **Urethral Diseases.**—The details of the diagnosis of urethral diseases, including personal history, examination of patient generally, the urethral discharge, preparation of specimens, discharge of urine and its examination, urethral exploration and also examination of seminal vesicles and prostate are all included. The details are too numerous to be included here.

8. **Renal Decapsulation.**—Edebohls describes his well-known method and reports cases operated on for other reasons than to cure chronic Bright's disease. He has yet to see the first evil effect attributable to decapsulation as such. The final results of some cases have been reported and others will be, later.

9. **Blood Count in Abdominal Disease.**—Longridge can not regard leucocytosis as an infallible indication of the presence of pus, but as an indication of toxemia its value appears to be very great. An increasing leucocytosis is, other things being equal, the most scientific means at our disposal for gauging the increasing virulence of an appendicular affection and a decreasing leucocytosis is evidence of decreasing virulence or walling off of the toxic products.

10. **Intestinal Anastomosis.**—Bishop describes a new bone bobbin, which he thinks has the advantages of the Jessett and Allingham bobbins, which, together, meet most of the indications required, simplicity, durability and absorbability, properly uniting the gut, facilitating and protecting suture, etc. He gives figures of the forms for end-to-end, side anastomosis and pylorectomy, and reports cases of its use.

12. **Paraffin Prothesis.**—A number of cases are reported by Downie, who finds it valuable and promising in its results. He classifies the failures in this operation to be due as follows:

1. To insufficient antiseptic precautions. 2. To the want of suitable apparatus. 3. To the injection of an excessive quantity of paraffin. 4. To insufficient digital pressure around the nose while the paraffin is being injected. The first two causes are apt to result in local inflammatory mischief, while the two latter favor the escape of the paraffin into the loose cellular tissue in the near neighborhood of the nose.

13. **Femoral Hernia.**—The operation recommended by Nicoll consists of two parts; I. Obliteration of the sac, the steps of which are: 1. Exposure of the sac; 2, opening it longitudinally in its middle line and clearing it of contents; 3, separating it from the parts surrounding its neck, including the transversalis and iliac fascia for one inch round the abdominal aspect of the ring; 4, bisecting the sac longitudinally from the fundus to the neck; 5, making an aperture in one-half near the neck; 6, interlocking the halves by putting the other through the aperture. In some cases it lies better if previously twisted one-half turn on its longitudinal axis; 7, reducing the whole sac through the femoral ring into the extraperitoneal space previously cleared for it by detaching its neck from the abdominal aspect of the ring. The sac thus lies bunched up within the abdomen, between the peritoneum and the transversalis and iliac fasciæ over the internal aperture of the femoral canal. II. Closure of the femoral ring consists in: 1. Carrying an incision (bone deep) from the femoral vein along the pubic ramus to the region of the pubic spine, dividing the pubic portion of the fascia lata and the origin of the pectineus, and the periosteum. Its length will depend on the extent to which the femoral vein has been displaced outward by the presence of the hernia, and will vary from 1 to 1½ inches. 2. Detach the periosteum to a limited extent and retract it. 3. Drill the bone in its upper edge in two places, one-half to one inch apart. 4. Pass through one of the apertures a loop of stout catgut or other absorbable ligature. 5. Divide the loop of ligature. Thread one end in a large curved surgical needle and pass it as a mattress suture through Poupart's ligament. Unthread it from the needle. Repeat this with the second end, carrying it through Poupart's ligament at a higher level, avoiding the deep epigastric artery to the outer side, and, in the male patients, the spermatic cord above. In very large hernias the loops may be made to diverge in the ligatures so as to gather in the margin of the aperture. 6. By a probe, into the eye of which the ends are threaded, withdraw both through the second drill-hole of the bone. 7. Tie the ends of each loop separately over the front of the bone, thus bringing Poupart's ligament down to the posterior surface of the bone, and then fixing it firmly in contact with that surface, thus making an extension practically of Gimbernat's ligament. 8. To more fully secure a closure, unite, by interrupted catgut sutures, the detached margin of the pectineal origin and the pubic portion of the fascia lata to the anchored Poupart's ligament. He asserts that this method has advantages over the Roux method in that it avoids the introduction of any metal body, and in other respects.

14. **Rodent Ulcer.**—McFeely treats rodent ulcer with formalin under local or general anesthesia, if it is not very large or easily accessible. Two or three applications seem necessary. Later he uses formalin glycerin 30 to 50 per cent., with or without tannin. In long-standing cases liable to involve bone or extensively destroy tissue he prefers to first curette away the diseased tissue, apply hemostatic and then apply the formalin, all under anesthesia. The formalin should not be allowed to evaporate. The blackish slough should be allowed to separate spontaneously or may be assisted by some unirritating ointment. He speaks highly of the results of this treatment.

17. **Constipation.**—Goodhart gives his ideas of the mechanism of constipation, which is often credited to obstruction in the stomach and bowel. He thinks it is more likely of reflex or paralytic nature, due to the lack of peristaltic action over a certain region and that the annular stricture is less likely to bring about this condition. He is rather conservative in treatment. Bowels are made for man, not man for the bowels, and there are great individual differences in persons. He has been struck with the fact that of all those that suffer from constipation, very few give signs of retention, and he thinks the trouble is largely with the men, that they eat too much, and with women that they eat too little. As regards mucocolitis, he thinks colostomy would be a very bad practice, even in extreme cases. Clearing out the colon is not always necessary, as it has a certain digestive function of its own for food. He is rather inclined to think the condition is not really a colitis, but rather a nervous trouble in many cases. He is also skeptical as regards flatulent colic, which is often due to other causes. He also questions the theory of autointoxication from the intestines. We should be cautious how we charge septicity to such masters in natural asepsis as are the stomach and colon.

18. **Cardiac Pain.**—This second lecture by Morison gives a classification of the forms of angina pectoris, classifying them

in two groups, one with pain and one without. The first type he notices in his article is the musculo-spasmodic, which he thinks may be possible, and that the quantity of blood supplied may have less to do with the trouble than the chemical changes in the muscle itself. He also notices the coronary, aneurismal, aortitic and coronary occlusive angina as admissible types, though he does not give the exclusive importance to any of them that is credited by some. As regards aortitic aneurism he takes issue with Huchard's views. He also mentions here both intravascular and extravascular neuritic causes, the latter in the disease of the spinal cord and other portions of the nervous system as in tabes. He admits that a purely neuralgic angina is possible, and is a preferable designation to "false" or "pseudo" angina.

22. **Kala-Azar.**—Rogers has investigated the serum reaction of kala-azar and finds it impossible to accept the view of certain others that it is identical with Malta fever. It is in his opinion a form of malarial fever, and in this he is supported by Ross from an independent investigation in Assam.

23.—Price takes the same view.

27. **Mosquitoes.**—Aitken gives a brief report of his experience with mosquitoes in the North Canara District of India and notes that the anopheles can not thrive in absolutely stagnant water like the culex. He thinks possibly because it favors the infusorian parasite to which they succumb so readily. He notices that they may also be found in pools, in newly broken ground, thus favoring the old theory that breaking up ground favors malaria.

28. **Mycoids.**—In a former number of the *Journal of Tropical Medicine*, Dr. W. L. Braddon describes a new organism as the most frequent hematozoon to be met with in the Malay peninsula, to which he gave the term "mycoid." Clarke has gone over the subject, examined for these organisms and finds that they occur in almost every examination, including those of perfectly healthy persons, and are not affected by quinin. He thinks it is a purely physiologic phenomenon and not a parasite or a pathologic organism.

30. **Transmission of Tuberculosis from Man to Cattle.**—Reviewed in THE JOURNAL of November 8, p. 1219.

32. **Croupous Fibrinous Rhinitis.**—Moeller reviews 74 communications that have been published on this subject, including Major's as early as 1885, and other American cases. He describes the clinical picture as consisting essentially of pseudo-membranes developing in the nose without previous or consecutive diphtheria or any operative intervention on the parts. It is an acute affection, and commences with a watery discharge and increasing obstruction of the nose until it is completely closed by the membranes. Nearly every patient on record was a child. The course is generally mild, not accompanied by general symptoms, and there does not seem to be any tendency on the part of the membranes to spread beyond the nasal cavities. It may be caused by various bacteria in conjunction with some injury of the nasal membranes, but is generally the work of the diphtheria bacillus. Occasionally it has shown itself to be contagious. In one of the two personal cases described, diphtheria bacilli were cultivated from the pseudo-membranes, and in the other the pneumococcus. Treatment was restricted to removal of the pseudo-membranes and local application of boric acid.

37. **Improved Writing Apparatus for the Blind.**—The small portable apparatus invented by Dussaud writes the alphabet from left to right and on the side of the paper on which it is to be read, thus obviating the necessity of turning the paper over. Instead of a punch the writing is done with a small frame containing six keys, like those of a typewriter, which allow all the combinations possible of the alphabet used by the blind, and raise the letters in relief.

43. **New Kind of Diphtheria Serum.**—Diphtheria antitoxin acts exclusively on the toxins, but Wassermann has succeeded in producing a specific serum which dissolves diphtheria bacilli and causes both agglutination and precipitation. He suggests that it might be possible to combine this new serum with the specific antitoxin, and thus enhance the benefits of the latter. The combination might prove peculiarly effective in convalescence from diphtheria or in cases in which the bacilli lurk in the throats of healthy persons. He mixes 20 c.c. of a 1 per cent. solution of ethylene diamin with 1 gm. of the bacilli thoroughly dried, killed and ground in a mortar. After the mixture has been shaken up together for several hours it is allowed to settle for twenty-four hours and then filtered. The toxins contained in the clear fluid that filters out are neutralized with diphtheria antitoxin, and it is then injected into animals. Rabbits have been used thus far in the experimentation.

45. **Acute Syphilitic Nephritis.**—A case is described in detail, observed at Ebstein's clinic, which confirms the experience of Dieulafoy, Hoffmann and others that acute nephritis may occur as one of the very earliest manifestations of syphilitic infection. The onset was severe, and in 3 cases on record it terminated fatally, but it is possible that a syphilitic nephritis may run an insidious and unrecognized course. In his case the specific infection was three weeks old, and edema, ascites and hydrothorax followed the appearance of condylomata and a painful throat affection. The urine was scanty, contained much albumin and numerous hyaline and granular casts. The patient was a robust working man, 31 years old, but the symptoms described had made him keep his bed for a week. He was rubbed daily with 5 gm. of gray ointment, and all the kidney symptoms, ascites, edema, etc., rapidly disappeared; the albumin in the urine dropped from 13.5 to 1.6 gm. in two weeks. The urine was normal when finally dismissed after seven weeks of treatment. The other manifestations of the syphilitic infection did not respond so promptly and effectively to the specific treatment as the nephritis. Karvonen has observed cases permanently cured for eight to thirteen years, but in Hoffmann's patient the nephritis recurred later.

47. **Typhoid Bacilli in Sputa.**—In the case first described the patient had succumbed to a fibrinous pneumonia associated with typhoid fever. Pneumococci were found numerous in the lung at the autopsy, and with them a few typhoid bacilli. The latter had probably been occasionally present in the sputa during life. In a second case a young man in the fourth week of a severe typhoid fever, as convalescence was approaching, suddenly exhibited severe symptoms on the part of the lungs, dyspnea, cyanosis and pulse rising from 80 to 120, with pain in the right side and marked increase in temperature. The sputum was foamy and streaked with blood. The heart action was so weak that stimulants were necessary. These symptoms gradually subsided in the course of six days, and the area of dulness which had developed suddenly, also vanished, and the sputa were no longer blood streaked. A serous effusion developed in the right pleura, but was gradually absorbed and convalescence progressed undisturbed. The sputa contained large numbers of typhoid bacilli for fourteen days, and a few pneumococci. Only a few cases have been published in which these bacilli were isolated from the sputa, and none in which a primary pneumo-typhoid developed in consequence of inhalation of bacilli in the dust of such sputa. It is very probable, however, that such dust alighting on articles of food may be the cause of abdominal typhoid. The sputa of Dieudonné's patient contained numerous typhoid bacilli for seven weeks, long after he had apparently recovered. The hemorrhagic character of the sputa was mentioned in every similar case on record. This hemorrhagic character may be due to an infarct in the lungs as well as to a pneumonia. In this case typhoid bacilli in the blood might get into the alveoles and be coughed up in the sputa. In a third case described a bacteriologist who had been working with extremely virulent typhoid cultures developed typhoid fever. In the third week he complained of pains in the lungs and an area of dulness developed on both sides with increasing fever. The sputa were viscous bright red balls; no typhoid bacilli could be found in them. An exploratory puncture on the thirtieth day revealed a serous, slightly hemorrhagic effusion in the pleura, which contained typhoid bacilli in large quantities. About 50 c.c. of the purulent effusion was removed the fifty-second day, after which the temperature dropped to normal. There had been no expec-

toration for some time, when the sixty-fourth day the patient coughed up a quantity of slightly hemorrhagic sputa. Exploratory puncture the eighty-fourth day failed to disclose further effusion, and the area of dulness observed was ascribed to a fibrinous pleuritis, but two days later, after dismissal, violent coughing occurred as the patient was ascending the stairs, and he coughed up about 200 c.c. of pus. Pure cultures of virulent typhoid bacilli were derived from the pus of the pleural empyema in this case. In a fourth the autopsy disclosed a hemorrhagic infarct in the lungs from which pure cultures of the pyocyaneus were derived. Death had occurred the twenty-sixth day of a severe typhoid fever, exhibiting the last two days hemorrhagic sputa with dulness and crepitus in the lungs. Mixed infection in the course of typhoid fever is a more serious condition than a pneumonia caused by the typhoid bacillus alone, as a second infection is superposed. It is still a question whether the typhoid bacillus alone is able to induce a lobular pneumonia, although Jehle has reported five cases in which he succeeded in isolating the typhoid bacilli, once in a pure culture, and once after influenza, associated with diplococci and staphylococci.

48. **Suggestions for Early Diagnosis of Cancer.**—Boas urges the general distribution of circulars warning against cancer, similar to the one recently issued by the Belgian government in its prophylaxis against venereal diseases. He thinks that if the public generally were instructed in the early symptoms of cancer, persons affected would apply to a physician at the first indications, instead of wasting time on treatment of supposed stomach troubles, hemorrhoids, etc. He states that of the 54 cases of cancer of the rectum in his experience since 1896, 80 per cent. were already inoperable when first seen. The carcinoma had not been diagnosed in the overwhelming majority, although in many instances there had been digital exploration of the region. He further urges that in all cases suspicious of cancer the patient should be admitted to a hospital and kept under observation for one to three weeks, returning for a second investigation if the result of the first had been dubious. Besides the benefit to the public from such measures, students and physicians would acquire valuable training in the early recognition of cancer.

53. **Statistics of Tertiary Syphilis.**—Weber's article is the result of five years' study of syphilis at Jadassohn's clinic at Berne, and supplements the latter's communication in regard to tertiary syphilis among the prostitutes of Breslau. The figures show that tertiary manifestations occasionally develop even after several courses of thorough mercurial treatment. Weber tabulates the statistics of 185 cases of tertiary syphilis in the clinic, and of 49 in private practice. No treatment had been applied in 77.3 per cent. of the former nor in 40.8 per cent. of the latter. Applying the principle followed in the Breslau statistics he collated all the cases of syphilis at any stage and found that 51, or 34.7 per cent., of 147 private patients who had been insufficiently treated or not at all, presented tertiary symptoms, while only 13, or 5 per cent., exhibited them out of 261 who had taken more than one course of treatment. There was thus a difference of 29.7 per cent. between the two groups. This difference amounted to 54.6 in those who had been under observation for more than one year, and to 58.5 per cent. in those under observation for two years and more. He groups his material in various ways, and the result is always in favor of thorough treatment as materially reducing the tendency to tertiary manifestations later. The cases of recurrence of tertiary accidents also showed that a third of the patients had not been treated for their primary affection. Also that those treated with iodid alone were in the majority.

56. **Symptomatic Treatment of Tuberculosis.**—In this review of his experiences as director of the great sanatorium at Alland, Weismayr mentions that he has frequently conquered the night sweats by ordering a harder bed, lighter night clothes and keeping the room cool, with open windows. A cold sponge may prove effective, especially when vinegar is used. Brehmer used to recommend as a sovereign remedy a glass of milk with two teaspoonfuls of brandy on retiring. Formalin and tannoform are the most effective external measures. The patient is swabbed with a mixture of equal parts of 40 per cent. formalin and alcohol, the first evening on the back and arms, the second on the legs, the third on the front of the trunk. The result is prompt, enduring and free from by-effects. Dohrn applies the formalin in a soap which is allowed to dry on. Weismayr has found the salvia preparations useful in cases of night sweats, giving 20 drops of the tincture in the morning and 30 at night. Lead acetate is still more effective. He prescribes it in the formula: .03 gm. plumb. acetic.; morphin. hydrochlor., .005 gm., and sachar., .3 gm., in two doses during the evening. In case of vomiting he has the patient eat oftener and smaller amounts and recline afterward, taking iced soda water. He has also seen good results follow the administration of 5 to 10 drops of tincture of iodin with .1 gm. of potassium iodid in water during the day, to correct digestive disturbances. A tendency to constipation will frequently yield to a glass of cold water before breakfast, supplemented by stewed fruits, sour milk or one-day kefir. The fever will generally subside on enforced repose, but if not, it is important to reduce it at meal times by medicinal means. Also in the cases that are free from temperature in bed but acquire it as soon as the patient gets up. He prefers pyramidon for the purpose: .25 gm. dissolved in half a glass of water, and slowly sipped in the course of a half hour before the anticipated rise in temperature. The fever is checked by this measure in every case, almost without exception, and sweating rarely follows, while no untoward effects were observed. Kobert attributes to pyramidon a stimulating action on the heart. He warns against allowing patients to become hypochondriac on the subject of temperature measurements. It is better to abandon the thermometer.

57. **Pyoktanin in Eye Affections and Chancroids.**—It is twelve years since Stilling proclaimed the merits of pyoktanin as a powerful antiseptic, free from toxic and caustic properties, while, contrary to other antiseptics, it does not coagulate albumin. Physicians have been slow to take advantage of it, but in veterinary circles it is being used more and more extensively every year. It is indispensable that the pyoktanin should come into intimate contact with the tissues, and consequently it must be applied in the form of a powder or very strong solution. A weak solution is absorbed by the dressings and the tissues do not feel its effects. Weill has been using it for ten years in eye affections, and states that the cornea and conjunctiva bear well a 1/100 solution or powder. He has also found it more effective than any other remedy for the treatment of chancroid when it can not be excised. He applies it pure in the form of a powder after curetting, and repeats daily or at brief intervals, removing the scabs that form until they are not easily detachable. When the firm scab at last drops off, the surface beneath is covered with healthy granulations, which do not stain blue with the pyoktanin. Four or five months may be necessary to complete the cure. The blue discoloration is the only drawback to this remedy.

59. **Treatment of Affections of Testicles and Adnexa on New Principles.**—Zabludowski has charge of the Berlin University Massage Institute and has found that many cases of inflammation and disturbances in the testicles and their adnexa can be cured by scientific stimulation of the nerves and circulation in the parts. His method of treatment includes massage manipulations, kneading and intermittent compression of the parts to diffuse and hasten the absorption of infiltrates and exudates; milking movements and stretching to cure thickening and shortening of the seminal cord, and twisting to detach adherences, but the principal factor in treatment is to induce rapid and violent changes in the circulation by means of repeated constriction with an elastic rubber band or tube 8 mm. wide and about 160 cm. long, which is wound around the roots of the penis and scrotum and left for fifteen to twenty minutes. By this time the venous congestion is intense, and when the compression is removed the arterial blood streams copiously through the parts. He describes the technic of the various manipulations, which must be graduated not to cause pain nor excitement. The indications for this very effective treatment are protracted inflammation of the testicles, epididymis and seminal cord of traumatic or gonorrheal origin, after the acute

stage has passed. Also functional disturbances with or without slight anatomic alterations; acquired or slight congenital shortness of the cord; atrophy *ex inactivitate*; sensory or motor disturbances and pathologic secretion. The sittings are repeated daily for ten to twenty minutes and continued two to eight weeks. The most rebellious cases are usually those that have been treated with cold applications at some previous stage. His experience has been extensive, and he advocated this method of treatment, with details of cases at the recent Naturforscher Congress.

61. **Changes in Visual Field in Syphilis.**—Ziemssen calls attention to the fact that a syphilitic affection of the brain or spinal cord is often associated with an affection of the optic nerve, limiting the field for red and green, even when the general visual field is unimpaired. The course of the main affection can be traced by inspection of the visual field as the conditions improve or grow worse, and it is thus a criterion of the benefits from treatment. In some of his patients the improvement was marked under mercury, but as soon as it was suspended the visual field gave evidence of retrogression. The more intense the treatment and the longer it was continued, the better the results in the visual field.

63. **Sahli's Test of Stomach Functions.**—Sahli's "flour soup" test was described in THE JOURNAL of May 31, 1902. Bönniger has been giving it a thorough trial and says that research in this line will aid in solving certain hitherto obscure problems, but that in the clinic, as a general rule, the older methods still hold their own in comparison.

64. **Excision of Nomatous Gangrene.**—Ranke illustrates a case of extensive noma of the genitalia and buttocks which developed during measles in a girl 3 years old. He treated it by prompt excision of all the diseased portions, as in three previous similar cases. All the patients made a smooth recovery. During the fifty-eight days spent in the hospital the child increased 22 per cent. in weight, a daily gain of 57 gm., about 2 ounces. In the other cases he supplemented excision with thermocauterization.

65. **Ovariotomy During Pregnancy.**—Graefe adds 27 cases, including 3 in his own experience, to the 148 on record of ovariotomy undertaken during pregnancy. The mortality of the mothers in the entire list was 2.3 per cent. One of the deaths occurred three months after the intervention, which could scarcely be incriminated in this case, and one death was inevitable, as extensive gangrene was found on operating. The last 126 operations contain only this one fatality. In 119 cases the pregnancy was interrupted by the intervention in only 19, or 16 per cent. In the last series of 27, abortion followed in 5 and premature delivery in 3. This series includes the American cases of Jarmann and Kahn. The pregnancy continued undisturbed in two cases with numerous adhesions or torsion of the pedicle of the tumor. In the cases in which abortion occurred there must have been some predisposition to it, possibly from decidual endometritis as the trauma of the intervention was slight. Abortion would probably have occurred even without the operation. The statistics show that ovarian tumors, during a pregnancy, induce abortion in 17 per cent. if left unoperated. After ovariotomy the pregnancy was interrupted in only 22.5 per cent., and a third of this number presented urgent indications for surgical relief. The results of expectant treatment have been a maternal mortality of 39.2 per cent. and a fetal of 67 per cent., according to Orgler's and Winckel's statistics. Six of the cases in the series demonstrate that even after evidences of impending abortion have appeared, prompt ovariotomy will afford relief, and the pregnancy will continue its course uninterfered with.

66. **Suture of Bladder After the High Operation.**—Hofmann recommends his practice of keeping the patient in bed and curing the cystitis before attempting to operate for the removal of a foreign body in the bladder. The time thus spent shortens the after-treatment, as the inflammation once cured, the incision in the bladder can be made without fear, and it is sure to heal smoothly after immediate suture.

68. **Review of 720 Gallstone Operations.**—Kehr's total mortality has been 15.5 per cent., and excluding the complicated cases requiring additional interventions on stomach or liver, carcinoma, etc., the mortality during the first hundred days after the operation was 3.5 per cent. He has been able to save a number of cases of diffuse cholangitis with putrid pus in the bile duct and liver. The patients would inevitably have succumbed without intervention, and if it is possible to save thus 3 per cent. of these apparently inoperable cases, it is the surgeon's duty to act. He can not be sure of the diagnosis before operating. Kehr has had only one case of peritoneal sepsis in his last 300 gallstone laparotomies. He finds that elderly persons bear the operation surprisingly well. His experience has also shown that a chronic interstitial pancreatitis is liable to cause the same clinical picture, cachexia, icterus, etc., as a carcinoma in the pancreas. An operation, however, may save the patient in the former case. He is impressed more and more with the advantages of draining the hepatic duct. He has done it 49 times in cystectomies, 6 times with cystostomy, 29 times with cystectomy and cysticotomy, and 6 times alone. He has been draining the hepaticus for six years, and has found that the loss of bile had no serious effect on the digestion, although in some cases all the bile was thus drained away for two weeks, a loss of 500 to 800 gm. of bile a day. The only symptoms resulting were the moderately lessened appetite and somewhat difficult defecation. He inserts a tube the size of the little finger, after the bile duct has been opened above the duodenum and all the accessible stones removed. The tube is introduced for a distance of 4 cm. Unless certain that the bile duct is completely free from stones, he inserts a second tube in this duct also. This favors later irrigation of the duct and removal of stones overlooked at first. He advocates this drainage of the hepatic duct after ectomy as the rational method of treating chronic recurring cholelithiasis. The mortality is less than after choledochotomy with suture as the operation is more rapidly concluded, and infection in the hepatic duct can be more easily cured. The surgeon is far less liable to overlook stones, as they are frequently discovered in the after-treatment. In one case a stone was thus found too large to be extracted. A laminaria was inserted liverward through the incision in the bile duct, and the hepatic dilated by this means until the stone could be easily extracted twelve hours later. The swelling of the laminaria was extremely painful to the patient, but it accomplished its purpose. He has never witnessed any untoward effects from this hepaticus drainage. The flow of bile usually ceases by the third week and the wound heals by the sixth. He has never observed a case of actual recurrence of stones after they have been completely evacuated, but thinks it is possible with a fresh infection of the biliary passages.

69. **Clinical Importance of Indicanuria.**—The results of examination of 40 patients with gastrointestinal affections and a large number of others with leukemia or anemia, Addison's disease, Bright's disease or affections of the liver or spleen are tabulated for comparison. They demonstrate beyond question that besides the indican derived from excessive intestinal putrefaction, there is another source for the indican in the urine, namely, in altered metabolism. Indicanuria is a constant symptom that aids in the diagnosis of insufficiency of the liver. It is also an important symptom in splenopathy of infectious origin.

70. **Hematology of Chloroform Narcosis.**—Solimei concludes from his extensive research that it is possible to determine the prognosis of a chloroform narcosis by examination of the blood, and also whether all the anesthetic has been eliminated from the system. The influence of the chloroform lasts from a few hours to several days in different individuals, and the changes it induces in the blood are in direct proportion to the amount of the anesthetic used. They are not all due to the chloroform but form a vicious circle. In tests on animals the blood had a strong odor of chloroform and coagulation occurred unusually slowly. The number of red corpuscles diminished, the decrease manifest even as late as forty-eight hours, while the proportion of whites increased. The spectrum of the arterial blood was characteristic of methemoglobin if the narcosis had been deep or protracted. The blood cells also

became altered in shape to a certain extent. The proportion of oxygen in the blood diminished while that of carbon dioxid increased. The deleterious action of chloroform is more marked on the venous than on the arterial blood.

71. **Treatment of Lupus with Formalin.**—Matteucci first curettes and removes all suspicious tissue, under cocain or chloroform, and six days later applies a compress impregnated with a 10 per cent. glycerin solution of 40 per cent. formaldehyd, preceded by a little cocain. The compress is left in place twenty-four hours and then renewed day after day. In two weeks a pink zone of healthy tissue replaces the lupus patches. Three years' experience has convinced him of the great advantages of this method of treating lupus. It is especially useful when the mucosa is involved, and it may be supplemented by Thiersch or Lang flaps. Dusting powders should be avoided, as they interfere with the action of the formalin. He has also applied it in a few cases of epithelioma with good results.

73. **Scoliosis of Sciatica.**—Cappuccio has observed Vanzetti's sign of scoliosis in six patients, and notes that the pelvis in sciatica is invariably held horizontal, while in other lesions of this region it is more or less inclined. This horizontal attitude of the pelvis in spite of the marked scoliosis is a valuable differentiating sign for sciatica. It is easy to understand the mechanism of the scoliosis, as the effort is to spare the inflamed nerve trunk, while in hip-joint disease the attitude is the result of the effort to spare the joint. His cases are illustrated.

75. **Medicated Steam for Affections of Upper Air-Passages.**—Della Vedova has been using for some time in the treatment of catarrhal affections of the upper air-passages an apparatus which sprays them with a medicated steam. The heat, the steam under pressure and the medicinal substance combine to affect the mucosa favorably, and his experience has been remarkably encouraging in regard to the value of this "rhinovaporization," as he calls it. He has found that certain mineral waters were peculiarly adapted for spraying in steam by this means, Salsomaggiore and Salice waters in particular.

79. **Trendelenburg's Method of Treating Varices.**—Ronchi has collected 655 cases of varices treated by 26 various surgeons with the Trendelenburg method of ligating the saphena. He adds that 29 out of 69 cases in his own experience were operated on, and by this method. The results demonstrate, he thinks, that this method of treatment, alone or combined with excision of the largest varices, is to be preferred to all other methods of intervention.

80. **Steam Treatment of Carbuncle.**—Gucciardello gives a cut of a little instrument he had invented for the purpose of applying a medicated spray to a carbuncle or similar lesion. The steam is generated in a small vessel, and emerges through four parallel and tapering tubes, which issue horizontally from the top of the vessel. The tips of the tubes form a square that includes the center of the lesion. He uses a 2 per cent. solution of carbolic acid for generating the steam. It is applied three or four or even more times a day, for a half to one hour each time, just avoiding scorching the tissues. Between the applications a compress wet with a solution of sublimate is applied. In four to nine days at farthest the necrotic portions are eliminated and the lesion heals from beneath with no loss of substance from the knife or cautery. He describes 7 cases thus treated with the best results. The application is not painful and recovery is prompt.

87. **Lecithin in Therapeutics.**—Serono regards the subcutaneous injection of lecithin as an extremely effective means of sustaining and increasing the vitality, as it provides a substance urgently needed by the organism in certain conditions. Lecithin derived from brain substance is liable to contain toxic neurins, ptomains, etc., consequently he prefers the whites of fresh eggs for the purpose. They contain fully 10 per cent. of lecithin. He injects it in emulsion in physiologic salt solution, in a dose of 20 to 30 cg. a day or even more.

90. **Closure of Defect in Gall Bladder.**—Baldassari has experimented on dogs and found that perforations and lacerations of the gall bladder can be advantageously closed by a sero-muscular flap from the abdominal wall. The striped muscular layer turned inward forms a strong wall for the gall bladder, and the layer of peritoneum outside blends with the peritoneum investing the organ. The conditions were found extremely satisfactory when the animals were killed later, and indicate that this method of treating such defects is very promising.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE MEDICAL NEWS VISITING LIST FOR 1903. Weekly (Dated, for 30 Patients); Monthly (Undated, for 120 Patients Per Month); Perpetual (Undated, for 30 Patients Weekly Per Year); and Perpetual (Undated, for 60 Patients Weekly Per Year). The First Three Styles contain 32 Pages of Data and 160 Pages of Blanks. The 60-Patient Perpetual Consists of 256 Pages of Blanks. Each Style in One Wallet-Shaped Book, with Pocket, Pencil and Rubber. Seal Grain Leather, $1.25. Thumb-Letter Index, 25 Cents Extra. Philadelphia and New York: Lea Brothers & Co.

HUMAN ANATOMY. A Complete Systematic Treatise by Various Authors, Including a Special Section on Surgical and Topographical Anatomy. Edited by Henry Morris, M.A., and M.B. Lond., F.R.C.S. Eng., Member of the Council (Lately Vice-President) of the Royal College of Surgeons of England. Illustrated by 846 Wood Cuts, the Greater Part of Which are Original and Made Expressly for This Work by Special Artists, 266 Printed in Colors. Third Edition, Revised and Enlarged. Cloth. Pp. 1328. Price, $6.00. Philadelphia: P. Blakiston's Son & Co. 1902.

THE WORK OF THE DIGESTIVE GLANDS. Lectures by Professor J. P. Pawlow, Director of the Physiological Department of the Institute for Experimental Medicine. Translated into English by W. H. Thompson, M.D., M.Ch., F.R.C.S. (Eng.), King's Professor of the Institute of Medicine, Trinity College, Dublin. Illustrated. Cloth. Pp. 196. Price, $2.00. London: Charles Griffin & Co., Ltd. Philadelphia: J. B. Lippincott Co. 1902.

A TREATISE ON DISEASES OF THE EYE, NOSE, THROAT AND EAR. For Students and Practitioners. By Various Authors. Edited by William Campbell Posey, A.B., M.D., Professor of Ophthalmology in the Philadelphia Polyclinic, and Jonathan Wright, M.D., Attending Laryngologist to Kings County Hospital. Illustrated with 650 Engravings and 35 Plates in Colors and Monochrome. Cloth. Pp. 1238. Price, $7.00. Philadelphia and New York: Lea Brothers & Co. 1903.

NOTHNAGEL'S PRACTICE OF MEDICINE: American Edition. Diseases of the Bronchi. By Dr. F. A. Hoffmann, of Leipsic. Diseases of the Pleura. By Dr. O. Rosenbach, of Berlin. Pneumonia. By Dr. F. Aufrecht, of Magdeburg. Edited, with Additions, by John H. Musser, M.D., Professor of Clinical Medicine, University of Pennsylvania. Seven Full-Page Colored Lithographic Plates. Pp. 1030. Cloth. Price, $5.00 net. Philadelphia and London: W. B. Saunders & Co. 1902.

THE AMERICAN TEXT-BOOK OF OBSTETRICS. In Two Volumes. Edited by Richard C. Norris, M.D.; Art Editor, Robert L. Dickinson, M.D. Second Edition, Thoroughly Revised and Enlarged. Vols. I and II. Cloth. Pp. 547 and 554 Respectively. Colored and Half-tone Plates. Price, Per Set, $7.00. Philadephia and London: W. B. Saunders & Co. 1902.

A TEXT-BOOK OF THE DISEASES OF THE EAR. For Students and Practitioners. By Professor Dr. Adam Politzer, of Vienna. Translated at the Personal Request of the Author, and Edited by Milton J. Ballin, Ph.B., M.D., and Clarence L. Heller, M.D. Fourth Edition, Revised and Enlarged, with 346 Original Illustrations. Cloth. Pp. 884. Price, $7.50. Philadelphia and New York: Lea Brothers & Co. 1903.

TEXT-BOOK OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By John J. Reese, M.D., Late Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania. Sixth Edition. Revised by Henry Leffmann, A.M., M.D., Professor of Chemistry and Toxicology in the Woman's Medical College of Pennsylvania. Cloth. Pp. 660. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1902.

DISEASES OF THE PANCREAS AND THEIR SURGICAL TREATMENT. By A. W. Mayo Robson, F.R.C.S., Senior Surgeon, Leeds General Infirmary; and B. G. A. Moynihan, M.S. (Lond.), F.R.C.S., Assistant-Surgeon, Leeds General Infirmary. 293 Pages, Illustrated. Cloth. Pp. 293. Price, $3.00 net. Philadelphia and London: W. B. Saunders & Co. 1902.

CLINICAL SURGERY for the Instruction of Practitioners and Students of Surgery. By A. J. Ochsner, B.S., F.R.M.S., M.D., Chicago, Surgeon-in-Chief, Augustana Hospital and St. Mary's Hospital. Pp. 481. Price: Cloth, $6.00; Leather, $7.00. Chicago: Cleveland Press (The Clinical Review Publishing Co.).

BACTERIOLOGICAL TECHNIQUE. A Laboratory Guide for the Medical, Dental, and Technical Student. By J. W. H. Eyre, M.D., F.R.S. Edin., Bacteriologist to Guy's Hospital. With 170 Illustrations. Cloth. Pp. 375. Price, $2.50 net. Philadelphia and London: W. B. Saunders & Co. 1902.

MEMORANDA ON POISONS. By Thomas Hawkes Tanner, M.D., F.L.S. Ninth Revised Edition, by Henry Leffmann, A.M., M.D., Professor of Chemistry in the Woman's Medical College of Pennsylvania. Cloth. Pp. 177. Price, $0.75. Philadelphia: P. Blakiston's Son & Co. 1902.

THE PHYSICIAN'S POCKET ACCOUNT BOOK, Consisting of a Manila-Bound Book of 208 Pages and a Leather Case. By J. J. Taylor, M.D. Price, $1.00 Complete. Subsequent Books to Fill the Case 40 Cents Each, or 3 for $1.00. Philadelphia: Published by The Medical Council.

SPECTACLES AND EYEGLASSES: Their Forms, Mounting and Proper Adjustment. By R. J. Phillips, M.D., Ophthalmologist, Presbyterian Orphanage. Third Edition, Revised with 52 Illustrations. Cloth. Pp. 109. Price, $1.00. Philadelphia: P. Blakiston's Son & Co. 1902.

THE DEVELOPMENT OF THE HUMAN BODY. A Manual of Human Embryology. By J. Playfair McMurrich, A.M., Ph.D., Professor of Anatomy in the University of Michigan. With 270 Illustrations. Cloth. Pp. 527. Price, $3.00. Philadelphia: P. Blakiston's Son & Co. 1902.

THE STORY OF A LIVING TEMPLE. A Study of the Human Body. By Frederick M. Rossiter, B.S., M.D., and Mary Henry Rossiter, A.M. Cloth. Pp. 348. Price, $1.00 net. Chicago, New York and Toronto: Fleming H. Revell Co. 1902.

REPORT OF THE SURGEON-GENERAL U. S. NAVY, Chief of the Bureau of Medicine and Surgery to the Secretary of the Navy, 1902. Paper. Pp. 339. Washington: Government Printing Office. 1902.

STUDIES FROM THE DEPARTMENT OF PATHOLOGY OF THE COLLEGE OF PHYSICIANS AND SURGEONS, Columbia University, N. Y. Vol. VIII. For the Collegiate Year 1901-2. Paper.

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THE MEDICAL RECORD VISITING LIST OR PHYSICIANS' DIARY FOR 1903. New Revised Edition. Leather. Price, $1.25. New York: Wm. Wood & Co. 1902.

EIGHTH ANNUAL REPORT OF THE CHICAGO BUREAU OF CHARITIES, for the Fiscal Year Ending May 31, 1902. Paper. Pp. 39.

TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY, 1902. Cloth. Pp. 291. Newark, N. J.: L. F. Hardham. 1902.

The Public Service.

Army Changes.

Movements of Medical Officers, U. S. Army, under orders from the office of the Adjutant-General, Washington, D. C., from Nov. 8 to 15, 1902, inclusive:

Arthur, Wm. H., major and surgeon, U. S. A., having arrived in San Francisco, will repair to this city and report in person to the Surgeon-General of the Army for instructions.

Branch, Frederick D., captain and asst.-surgeon, U. S. V., is honorably discharged, to take effect Dec. 20, 1902, his services being no longer required.

Garlington, Joseph C., captain and asst.-surgeon, U. S. V., is honorably discharged, to take effect Nov. 30, 1902, his services being no longer required.

Heller, Joseph M., major and surgeon, U. S. V., is honorably discharged, to take effect Nov. 30, 1902, his services being no longer required.

Hoff, John Van R., lieutenant-colonel and deputy surgeon-general, U. S. A., is relieved from duty in the office of the Surgeon-General of the Army, to take effect Dec. 1, 1902, and will then proceed to Ft. Leavenworth, Kan., and report in person to the commanding officer of that post for duty.

Kemp, Jos. M., contract surgeon, U. S. A., will proceed from this city to San Francisco, and will report to the commanding general, Department of California, for transportation to the Philippine Islands.

The resignation of Arthur M. Line, first lieutenant and asst.-surgeon, U. S. A., of his commission as an officer of the Army has been accepted by the President, to take effect Dec. 1, 1902.

Lynch, Charles, major and surgeon, U. S. V., captain and asst.-surgeon, U. S. A., is honorably discharged from the service of the U. S. as major and surgeon, U. S. V., only, to take effect Dec. 15, 1902.

Lynch, Charles, major and surgeon, U. S. V., now at San Francisco, will proceed to Ft. Porter, N. Y., for duty.

Nicholson, John L., contract surgeon, U. S. A., is relieved from duty at Monterey, Cal., and will proceed to his home, Dorchester, Mass., and report to the Surgeon-General of the Army for annulment of contract.

Tweedie, Hedley V., contract surgeon, U. S. A., is relieved from duty at the General Hospital, San Francisco, and will proceed to Monterey, Cal., for duty.

Phillips, John L., major and surgeon, U. S. A., having reported his arrival in San Francisco, will report in person to Major-General Adna R. Chaffee, U. S. A., for special duty and to accompany him to his station and upon completion of this duty will report by letter to the Adjutant-General of the Army for further orders.

Shaw, Henry A., captain and asst.-surgeon, U. S. A., is granted leave of absence for ten days.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ending Nov. 15, 1902:

Medical Inspector J. R. Waggoner, detached from the Marine Recruiting Station, Boston, and ordered to the Navy Yard, Mare Island, Cal.

Surgeon J. W. Baker, retired, ordered to duty at the Naval and Marine Recruiting Stations, Boston.

Surgeon N. H. Drake, detached from the Navy Yard, Mare Island, Cal., and to continue duty on *Solace*.

P. A. Surgeon J. M. Moore, detached from the *Indiana*, and ordered to the *Raleigh*, when commissioned.

Medical Director G. F. Winslow, detached from the Naval Recruiting Station, Boston, and to wait orders.

A. A. Surgeon H. Shaw, appointed asst.-surgeon from October 28.

P. A. Surgeon A. W. Dunbar, detached from the Navy Yard, Puget Sound, Wash., and ordered to the *Wyoming* when commissioned.

P. A. Surgeon A. R. Alfred, ordered to the Navy Yard, Puget Sound, Wash.

P. A. Surgeon E. J. Grow, detached from the Navy Yard, New York, and ordered to the *Marblehead*.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Nov. 13, 1902:

Assistant Surgeon-General H. D. Geddings, to proceed to Delaware Breakwater quarantine for special temporary duty.

Surgeon John Godfrey, granted leave of absence for one month from November 13.

Surgeon W. P. McIntosh, granted leave of absence for 3 days from November 27.

P. A. Surgeon G. M. Guiteras, to proceed to Reedy Island quarantine for temporary duty, relieving Asst.-Surgeon T. F. Richardson.

P. A. Surgeon J. H. Oakley, granted leave of absence for one day.

P. A. Surgeon H. W. Wickes, to proceed to Cleveland, Ohio, and assume temporary charge of the service during the absence on leave of P. A. Surgeon J. B. Greene.

P. A. Surgeon J. B. Greene, granted leave of absence for 15 days from November 22.

Asst.-Surgeon V. G. Heiser, to proceed to Philadelphia and report to medical officer in command for special temporary duty.

Senior Pharmacist and Chemist W. F. Macdowell, relieved from temporary duty in Washington, D. C., and directed to proceed to New York, and report to Surgeon G. W. Stoner, Immigration Depot, for duty, relieving Senior Pharmacist and Acting Chemist A. M. Roehrig.

Senior Pharmacist and Acting Chemist A. M. Roehrig, on being relieved from duty at the Immigration Depot, New York, to proceed to Stapleton and report to medical officer in command for duty and assignment to quarters, relieving Senior Pharmacist Charles Miller.

Senior Pharmacist Charles Miller, on being relieved from duty at New York (Stapleton), to proceed to Pensacola, Fla., and report to the acting assistant-surgeon in charge of the Santa Rosa quarantine station for temporary duty.

BOARDS CONVENED.

Board convened at Washington, D. C., for the consideration of the Act of Congress approved July 1, 1902, entitled "An act to regulate the sale of viruses, serums, toxins and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes." Detail for the Board: Assistant Surgeon-General L. L. Williams, chairman; Assistant Surgeon-General H. D. Geddings; P. A. Surgeon M. J. Rosenau; Asst.-Surgeon B. S. Warren, recorder.

Board convened at the U. S. Marine Hospital, Chelsea, Mass., Nov. 17, 1902, for the physical examination of officers of the Revenue Cutter Service. Detail for the Board: Surgeon R. M. Woodward, chairman; Asst.-Surgeon W. K. Ward, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Nov. 15, 1902:

SMALLPOX—UNITED STATES.

California: San Francisco, Oct. 26-Nov. 2, 6 cases.
Colorado: Denver, Oct. 25-Nov. 1, 3 cases.
Florida: Jacksonville, Nov. 1-8, 1 case; Lamont, Oct. 18-Nov. 8, 4 cases; Mayport, Oct. 18-Nov. 8, 1 case; Pensacola, Oct. 18-Nov. 8, 1 case.
Illinois: Nov. 1-8, Chicago, 3 cases, 1 death; Freeport, 4 cases.
Indiana: Indianapolis, Nov. 1-8, 2 cases.
Kentucky: Lexington, Nov. 1-8, 13 cases.
Massachusetts: Nov. 1-8, Boston, 8 cases, 1 death; Cambridge, 1 case; Medford, 1 case.
Michigan: Detroit, Oct. 25-Nov. 8, 20 cases; Grand Rapids, Nov. 1-8, 4 cases.
Missouri: St. Louis, Nov. 2-9, 19 cases.
Nebraska: Omaha, Nov. 1-8, 1 case.
New Hampshire: Nov. 1-8, Manchester, 2 cases; Nashua, 20 cases.
New York: New York, Nov. 1-8, 4 cases, 1 death.
Ohio: Cincinnati, Oct. 31-Nov. 7, 4 cases; Cleveland, Nov. 1-8, 12 cases, 5 deaths; Hamilton, Nov. 1-8, 1 case; Toledo, Oct. 4 Nov. 8, 14 cases, 2 deaths; Warren, Oct. 25-Nov. 1, 1 case.
Pennsylvania: Nov. 1-8, Altoona, 1 case; Erie, 8 cases; Johnstown, 5 cases, 1 death; Philadelphia, 3 cases; Pittsburg, Oct. 25 Nov. 8, 52 cases, 8 deaths.
South Dakota: Sioux Falls, Nov. 1-8, 1 case.
Utah: Salt Lake City, Nov. 1-8, 1 case.
Wisconsin: Milwaukee, Nov. 1-8, 20 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Oct. 18-25, 8 cases.
Belgium: Antwerp, Oct. 18-25, 1 case, 1 death.
Brazil: Bahia, Sept. 27-Oct. 18, 4 cases.
Chile: Pisaqua, Oct. 13, 6 cases.
Ecuador: Guayaquil, Oct. 18-25, 3 deaths.
Great Britain: Bristol, Oct. 11-18, 1 death; London, Oct. 18-25, 1 case, 1 death; Manchester, Oct. 18-25, 1 case.
Russia: Oct. 11-18, Moscow, 3 cases; Odessa, 1 case.
Switzerland: Geneva, Oct. 11-18, 1 case.

YELLOW FEVER.

Colombia: Panama, Oct. 27-Nov. 3, 6 cases.
Costa Rica: Port Limon, Oct. 25-Nov. 1, 2 cases, 2 deaths.
Ecuador: Guayaquil, Oct. 18-25, 2 deaths.
Mexico: Progreso, Oct. 17-24, 1 case, 1 death; Tampico, Oct. 26 Nov. 2, 5 deaths; Vera Cruz, Oct. 25-Nov. 1, 7 cases, 5 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, Sept. 14-20, 49 cases, 36 deaths; Provinces, Sept. 13-20, 3,853 cases, 2,454 deaths.

CHOLERA—FOREIGN.

Egypt: July 12, 38,083 cases, 32,377 deaths; Oct. 25-Nov. 1, 225 cases, 22 deaths; Alexandria, Oct. 11-18, 58 cases, 55 deaths.
Japan: Kobe, Oct. 4-11, 49 cases, 22 deaths.

PLAGUE—UNITED STATES.

California: San Francisco, Oct. 28, 1 case, 1 death.

PLAGUE—FOREIGN.

India: Karachi, Oct. 5-12, 13 cases, 8 deaths.
Russia: Odessa, Oct. 18-25, 45 cases, 16 deaths.

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